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Geography Education in Uganda: A Critical Analysis of Geography Programs in National Teachers Colleges

by

ALICE MERAB T. KAGODA ©

A thesis

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in partial fulfillment of the requirements for the degree of
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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled **GEOGRAPHY EDUCATION IN UGANDA: A CRITICAL ANALYSIS OF GEOGRAPHY PROGRAMS IN NATIONAL TEACHERS COLLEGES** submitted by **ALICE MERAB T. KAGODA** in partial fulfillment of the requirements for the degree of **Doctor of Philosophy in International/Intercultural Education.**

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Dedicated to

my beloved husband and my dear sons.
my late father, my mother, my extended family
including all women in the struggle,

the student teachers whose enthusiasm
and inspiration kept me in high spirits
throughout the research.

ABSTRACT

This study examines the Geography program in two selected National Teachers Colleges (NTCs) in Uganda to determine their paradigmatic orientation in the dimensions of content, knowledge and pedagogy while raising possibilities for integrating curriculum and schooling with transformative perspectives.

Data was obtained from various sources including a questionnaire, interviews, participant observations and documents. Participants in the interviews included 34 student teachers in their final year, four lecturers, two NTC directors, five members of the National Curriculum Development Centre (Geography Panel), two Geography officers from the Uganda National Examinations Board; one inspector of Geography for secondary schools; three Assistant Commissioners and the Commissioner of Education in the Ministry of Education and Sports. Most participants defined development as an evolutionary process where people move from traditional ways of living to a western style.

The major conclusions are that the regional geography approach recommended is environmentally deterministic with little emphasis on people and their welfare; and that both the syllabus content and sample examination questions reflect an avoidance of controversial socio-economic issues - issues which would aid the student teachers in later posing alternatives. A significant finding confirms the role that former authoritarian schooling and educational experiences of the participants in shaping their attitudes and pedagogical practices.

In summary, participants value global education and do not object to integrating it across the curriculum, although some obstacles were identified such as the lack of global education preparation of the lecturers in the NTCs; the lack of teaching materials in the NTCs and schools; and the large classes in both schools and the NTCs. The study concludes with recommendations for enhancing geography education programs in the NTCs. These include reorienting Geography education to take into consideration issues such as local knowledge and culture, a closer school-community relationship, and bringing in student life experiences into the classrooms, and that lecturers and other educators be encouraged to write local curriculum resources which will be more relevant to Geography education in Uganda.

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CHAPTER ONE

INTRODUCTION TO THE STUDY

Introduction

Despite decades of political independence, the development of education in many South countries such as Uganda continue to face critical issues and problems. There is little or no schooling for half or more of school-age children in the poorer states of Asia, Africa and Latin America (Bacchus, 1981; UNDP, 1988). In recent decades, the serious economic crises experienced in the African continent in particular have been accompanied by a significant decline in educational development as emphasized by Moock & Jamison (1988):

> The principal problems in African education today are stagnating enrollments and declining quality. Total enrollments in sub-Saharan Africa grew at an average annual rate of 6.5% during 1967-70 and 8.9% during 1970-80 but over 1980-83 the rate of increase dropped to 4.2%. This decline, affecting all levels of education is most pronounced at the primary level, where the annual rate of growth fell from 8% during 1970-80 to 2.9% over 1980-83 well below the projected growth of the school age population (p.22).

Despite the Universal Declaration of Human Rights which states that everyone has a right to education, it was noted in the 1990 world conference on education that, at a global level, the following realities still persist:

> More than 100 million children (including at least 60 million girls) have no access to primary schooling. More than 960 million adults (two-thirds of whom are women) are illiterate, and functional illiteracy is a significant problem in all countries. More than 100 million children and many adults fail to complete basic education programs, and more than one-third of the world's adults have no access to the printed knowledge of new skills and technologies (WCEFA, p.1).

In most South countries, an emphasis on human capital or human resource development has prompted governments to invest more in the modern sector of the economy with the belief that it would spearhead economic growth and development. Guided by this theory, educational planners began to invest more in secondary and tertiary education to obtain the necessary manpower requirements for the modern sector. Since 1960, secondary and higher education have been expanding much more rapidly than primary education. For example, between 1960 and 1970, primary school enrollment in the developing countries increased on average by about 10.5 percent and 25.5 percent per annum respectively. One consequence of this was that while the percentage of illiteracy was falling, the number of illiterates in the world (due to population increase) rose by 70 million between 1960 and 1975 to an estimated 800 million (Bacchus, 1981; UNDP., 1989).

There are marked inequalities on the basis of social class, ethnicity and gender in access to education in most countries (Eliou, 1976; Van Berghe, 1978; Yeakey, 1977; Zachariah, 1985). For example, female gross enrollment rates in primary schools are 3 percent lower than male rates in Latin America. In sub-Saharan Africa, female gross enrollment rates are 17 percent lower at the primary level and 38 percent lower at the secondary level (UNDP, 1990). Zachariah (1988) and Bacchus (1988) noted that children of the poor in rural areas find it exceedingly difficult to break into the urban, modern, regular wage sector. They relapse into illiteracy, and schooling has no noticeable effect on the economic and cultural lifestyle of the poor. Carnoy (1982) also observed that children from rural and poor urban backgrounds receive less education than the small minority from the middle and upper-middle class backgrounds. Social class, therefore, has a significant effect on income and types of jobs even for those who finish the same level of schooling. Economic development has produced inequalities and imbalances between societies and geographical localities as well. Economic imbalances in a multi-racial society can often result in educational inequalities between different ethnic groups (Van Berghe 1978; Wang 1988). The provision of universal education may, in fact, result in unbalanced development between ethnic groups because of their different capacities for absorbing and utilizing education (Akande, 1987; Eliou, 1976).

Poor quality of education is a central issue facing most South countries. Levels of educational achievement (especially among African students) is low by world standards. This is partly a result of declining levels of key inputs, including books and other learning materials. Inadequate financing is made worse by the effects of structural adjustment policies which cut down on finances for education as well as make children enter the workforce as soon as possible to contribute to the family income (Moock &Jamison 1988; UNDP., 1989). Other factors affecting the quality of education are poor quality of teachers and language inadequacies. These educational issues and problems are part of the wider social, cultural and political economic underdevelopment of Southern regions characterized by poverty and deprivation, homelessness, health deficiencies, unemployment, economic stagnation, the debt crisis, environmental degradation, political instabilities and other problems which cause human suffering (Bacchus, 1988; Moock & Jamison, 1988; Toh 1987; UNDP., 1989; Zachariah, 1985).

Uganda has to grapple with such issues and problems especially in its present period after decades of political instability, conflict and violence. The education system is pyramidal, highly selective, and allows only a small number of primary graduates to enter secondary schools and higher education. In poor areas, parents are less likely to send their children to school because of lack of finances and sufficient social motivation. Some remote districts do not have sufficient revenue to improve on the educational programs, making the quality of schools even poorer. The problem of repeaters is also aggravated by an inadequate supply of qualified teachers, large classes, and a lack of adequate supervision. For example, in the period 1986-88 the percentage of repeaters was 14 percent of the total enrollment, with 24 percent drop-out rate at the primary level in 1986-87 (Currie, 1977; UN., 1988). The World Bank report (1993) recorded that 38 percent of the women had no education at all, while 43 percent had received some primary education and only 19 percent had completed primary school. Official enrollment for primary schools is 80 percent for boys and 63 percent for girls. The proportion of girls to boys in secondary schools is only one-half that found at the primary level (UNICEF, 1989).

The Uganda government has not been able to construct adequate numbers of primary schools and this task has been left to private sources like churches, parents and business people. Even in secondary education, private investment has been important. Every school has experienced a decline in textbooks and school equipment. In 1971, there was an average of one chair for every 8.8 pupils, while in 1981 there was one chair for every 12 pupils. The norm in rural schools is for students to spend long hours in school sitting on the floor, copying and memorizing a lesson which the teacher has summarized from a single outdated textbook. What they are able to copy down and memorize becomes the core of their education. Experience of this scarcity of educational materials is then passed on through the system. The proportion of recurrent costs allocated to classroom resources; books, maps, visual aids, furniture and the like in Uganda is 0.1 percent, the lowest in the world (Heyneman, 1983). The scarcity of educational material was again lamented by the report of the Education Commission chaired by professor Kajubi (1989). Despite these problems some progress in improving educational quality has been made. For example the proportion of Ugandan primary school leavers able to continue to secondary schools has declined from a high of 31.5 percent in 1964 to 12.6 percent in 1979 (Heyneman, 1983).

In South countries another critical issue for policy makers, educators and teachers is that of curriculum appropriateness. The issue is, "what kind of curriculum is needed to relate with the urgent social, economic, political and cultural dimensions of national development?" In Uganda, the inappropriateness of the curriculum and other educational aspects were recognized by the government and a commission of inquiry was appointed to survey these issues and problems. The Education Commission was headed by professor

Kajubi, hence giving it the name Kajubi Report of 1989. Irrelevance of the curriculum is a serious concern cited by the Commission:

> ...the government, the people, as well as professional educators, have expressed concern about the irrelevance of the education system and about failure to meet the needs of the society. Education is failing, among other things, to promote a sense of national unity, self-reliance, social justice and equity, and to impart scientific and technological knowledge, cultural values, literacy and a sense of social responsibility to a degree that society would like to see. There has been too much concentration on academic learning, passing examinations and paperwork per se to the neglect of knowledge, skills and values needed to solve real life problems. (pp.i)

This report, therefore, recommended to policy makers the re-formulation of educational aims, goals and objectives at all levels of education. In 1992, many of the Kajubi report recommendations were endorsed by the government White Paper designed to restructure the Ministry of Education and Sports. It is also hoped that the policy guidelines will help curriculum designers to develop an appropriate curriculum to meet the needs of Uganda. However, it is useful to conduct in-depth research on the curriculum in its theoretical and practical dimensions in Ugandan educational institutions. The primary school curriculum has recently been improved by integrating population and family life education. Primary teacher training programs are being improved with some assistance from outside. Current research activities have mainly been in the area of curriculum content, effectiveness of teaching methods and performance of students in examinations. Research will enable relevant personnel to learn about the perspectives and approaches of educators in various fields or subject areas from which lessons can be drawn for curriculum change and innovation.

This study will focus specifically on the geography subject field as practiced in one sector of educational system namely the National Teachers Colleges. To date, research in education has not been conducted on the assumptions, purposes and strategies of Geography education in the teachers colleges. Research in Geography education has been mainly focused on its practice in the secondary schools. Since experiencing major changes in the early 1970s, the geography curriculum has undergone little change. It is therefore timely and useful to critically analyze its relevance in the current Ugandan context in terms of content, methods, textbooks and evaluation procedures. By looking especially at Geography education in the National Teachers Colleges this study will shed light on the quality of Geography teachers entering Uganda schools. Furthermore, amidst a world-wide rethinking in geography curriculum, South and North educators see the relevance of global and peace education in raising societal awareness as the limitation of the conventional development policies and programs implemented by the modernization paradigm. As elaborated later, global education has the capacity to relate geography education to social, cultural, political and economic contexts and needs of ordinary citizens.

Unlike educational innovations in past colonial and even post colonial decades which were often uncritically transferred from North to South regions, the field of global and peace education has emerged in a complementing way in North and South contexts. Indeed often south perspectives and practices have been useful for the North in their development of global and peace education programs.

In sum, Geography educators and scholars are increasingly concerned with the possibilities that global education perspectives can help enhance the relevance and purposes of Geography education. By examining the nature of current programs of Geography education, this study will consider possibilities and issues raised by global education perspectives for Uganda Geography education in the National Teachers Colleges.

Uganda: Society and Development

Demography and History

Uganda is a landlocked country straddling the equator between 4 degrees North and 1 degree South and stretching from 29 degrees East and 35 degrees East. Much of the country lies on the African plateau at altitudes ranging from 900-15,000 meters above mean sea level. Uganda measures 241,038 sq. km. in area of which 194,000 sq. km. is dry land, 33,926 sq. km. forest reserves and National Park, and 7,674 sq. km. of permanent swamp. Of the remaining 169,990 sq. km, only about 5 percent is under cultivation (Ministry of Planning, 1987).

In the 1990 census, the population was estimated at 16.6 million people of which about 90 percent live in rural areas. Life expectancy is 47 years for men and 50 for women. The proportion of children aged 0-14 is estimated at 48 percent, almost half of the total population (World Bank, 1993). This population can be divided into three classes according to Banugire (1989), peasants, who are the overwhelming majority of the working population (86 percent), workers (8 percent), and middle and upper class (2 percent) The rural population may further be divided into rural capitalists (rich peasants with substantial non-land fixed assets), the middle and poor peasants with limited productive and non-productive wealth, and finally the landless laborers. Poor peasants lacking most basic needs constitute the majority of the rural population. Over 50 percent of the people in Central region are poor peasants, 60 percent in the Western, over 80 percent in northern and 70 percent over the whole country. It is, therefore, clear that the bulk of agricultural production is undertaken by the poor rather than the middle class and rich peasants (Banugire, 1989).

Uganda is a political creation of the British colonizers who put together various groups of people to form a nation. Ethnic communities are divided placing them under two or more administrations. For example the Samia, Luo, Gisu, Sebei, Teso, some tribes of Karamoja are both in Kenya and Uganda. In the southwest, there are Rwandese in Uganda, Rwanda and Zaire. In northwest Uganda some communities were divided by the geographical boundaries of Uganda, Zaire and Sudan.

This colonial-imposed political process in which different ethnic groups were either lumped together or divided has resulted in chronic political instability and civil disturbance, attempts at secession, coup d'état, and guerrilla warfare. This also resulted in the waxing and waning of refugee flows in and out of Uganda, partly accounting for the high levels of government expenditure on the purchase of arms and support of armed forces and police. During the regime of Idi Amin, the situation was especially traumatic for Ugandan society due to extensive human rights violations, political repression and bitter civil war (Brett, 1994; Gertzel, 1980; Khadiagala, 1978).

Uganda has a number of refugees having to accommodate three main groups of political refugees, from Rwanda, Sudan, Zaire and minor flows from South Africa, Mozambique, Zimbabwe, Angola and Somalia. According to USAID (1995) information service, Uganda accommodates 350,000 refugees today. The largest group is composed of involuntary migrants such as those displaced within Uganda by political events and over-population who are referred to as economic refugees. Most are settled in camps in western Uganda, although a good number are scattered in urban areas. Being a poor country, refugees have been a burden on scarce national resources (Kabera, 1987).

Economy

Economically Uganda inherited a dual economy characterized by a modern industrialized sector in the large urban centers and a rural underdeveloped poor sector. The poverty of the overwhelming majority of workers and peasants co-exists with the influence of a small minority of bureaucrats, private businessmen, foreign agents of multinationals and politicians. By the time Uganda became independent in 1962, it depended on export of cash crops including coffee, tea and cotton which were needed by the British and other western countries (Mamdani, 1976). Today, agriculture is still the mainstay of Uganda economy accounting for 51 percent of the GNP (1991), over 90 percent of exports and employing 80 percent of the employed household population (World Bank, 1993). Uganda depends heavily on aid which amounts to 60 percent of government spending.

Coffee exports have declined in recent years and yet earnings from coffee support imports which are more expensive. Uganda has tried exporting other crops with fluctuating prices, such as simsim, beans, vanilla, chilies, horticulture products, etc. Like any other developing country Uganda suffers from technological backwardness and technological dependence, which allow the industrialized North to exercise control over what she produces (Banugire, 1989). Transferred technology is usually not integrated into the local culture and system of production and so its ability to stimulate further technological development is severely limited (Ake, 1981). Transnational corporations often have little incentive to produce technology and goods more suitable for the needs of the poor majorities in South countries. South countries like Uganda lack technology to build a strong industrial base that can link other sectors of agriculture, commerce and social services. Because of the higher costs of machinery, spare parts and other technologies, as opposed to lower prices of agricultural exports, Uganda remains marginalized in the global economy.

The transport and communication systems are relatively well developed in the south of the country. The railway line reaching the western part of Uganda was constructed for the purpose of transporting copper to Jinja and later to the sea port of Mombasa in Kenya. There is also a line to northern Uganda which was constructed for the purpose of transporting agricultural produce like cotton to the coast. The road network consists of 7,500 km. of trunk roads and some 21,200 km. of feeder roads. Rural feeder roads however remain in a state of disrepair with an estimated 25 percent impassable in the rainy season (Uganda Atlas, 1969; World Bank; 1993).

In the 1970s and early 1980s, Uganda was seriously affected by civil war in the countryside, resulting in the loss of even the most highly educated people through repression and brain drain. The civil service hardly functioned, infrastructures and output collapsed, schools and hospitals had no materials and the workers were demoralized. Public servants took bribes to provide services or to ignore rules and regulations. Taxes went unpaid, customs controls were ignored, and foreign exchange was sold on the black market. Export crops were smuggled across borders or farmers grew alternatives which could be legally traded on private markets.

The core of this economic crisis was the inability of the majority of the working population to meet even 5 percent of their basic needs requirements out of the formal wage incomes, and the persistent search for informal incomes to meet their basic needs (Banugire, 1989; Brett, 1994) The Government of Uganda started implementing the IMF, World Bank policies from the early 1980s, but up to 1986 these policies had failed to liberate the economy from institutional traps of poverty, and exploitation, or to reverse the process of economic decline.

After a very long guerrilla war in 1986 the National Resistance Movement (NRM) led by President Yoweri Museveni took over the Government of Uganda. The movement has a socialist orientation and its manifestos and policies advocate emancipating the poor majority in the country. A populist type of government composed of "Resistance Councils" from the village level was introduced, whereby all citizens participate in local decision-making, while the voices could be heard at the national level through representatives of the popularly elected members of parliament. The NRM. government has restored relative peace and security in the country except for some parts of the northern Uganda. Some degree of economic growth has resulted from the entry of foreign investment in industry, commerce, transport and communication. Former Ugandans of East-Indian origin expelled during the Idi Amin period were encouraged to return to restart confiscated businesses.

From 1986 the NRM government introduced the Ten Point Program as a policy document for the rehabilitation of the economy. This document aims at promoting an independent, integrated self-sustaining economy within an institutional framework of a mixed economy. It is biased toward community and state intervention for ensuring the protection of the basic needs and the activation of the working population. It also calls for fundamental institutional reform, in agrarian, financial, and cooperative movement system. It advocates for diversification of agricultural production especially food-stuffs, and encourages barter trade. However, in recent years the Government has been willing to adopt the liberalization strategy and privatization policies endorsed by the IMF. and World Bank agencies which pose contradictions for the NRM's program for self-reliance and community centered economic development.

Health

Since the 1970s, social services in Uganda have been characterized by a deterioration of labor and time spent by professional medical officers on a service delivery system. This has resulted in dramatic shift from public to private health services. The increased costs for medical treatment however, tend to exclude more people, leading to a greater reliance on traditional doctors (Banugire, 1989). The infant mortality rate is about 117 per 1,000, making it 70 percent higher than the average for low income countries generally. The maternal mortality rate is 2.65 per 1,000, based on Kampala hospitals' statistics. The total fertility rate is 7.3, live births, being the fourth highest rate among the 120 countries included in the World Bank data base (World Bank, 1993). According to UNICEF (1989), 71 percent of the households in Uganda have no safe drinking water.

In general, Uganda's food situation is more or less satisfactory, since almost all major food requirements are produced locally and are available for most part of the year. National data however conceal substantial food deficiencies in certain areas, (for example, Karamoja, Kigezi, Bukedi, and Mbarara), and for certain population groups such as the urban poor, infants/children and mothers. Severe protein deficiency occur in East Mengo, Ankole and Bukedi (Banugire, 1989).

Education

Modern education in Uganda was initiated by Christian missionaries. These early schools received subsidies from the British colonial government (Castle, 1968; Furley & Watson, 1987). Boarding schools were set up by the two competing missionary groups, the Anglican Protestants and the Roman Catholics for the sons and daughters of chiefs. A limited number of day schools were also set up in various parts of the country. Since the southern kingdoms had the opportunity of receiving the first missionaries as well as colonial administrators, most of the formal educational institutions were first established there. The colonial government, however, encouraged the northern tribes to move to the south to work as laborers in cash crop production and other manual labor jobs. Others were encouraged to join the army as soldiers rather than growing cash crops. Consequently, people in the south received education earlier and were advantaged for employment in government bureaucracies (Furley, 1988; Mazrui, 1987).

By the end of the 1950s, a very limited number of secondary schools were developed as recommended by the Binns commission (1951) and de Bunsen Committee (1953). Both emphasized Africanization of education and the training of high level manpower which was needed for the country's economic development. There was a belief that the modern sector of the economy would spearhead the development of the country. They believed that investment in education increased labor productivity by embodying in that labor the increased skills and knowledge necessary for production (Bacchus, 1981; UNDP, 1989).

There was also a belief that developing countries need to use production techniques similar to those used in developed countries, and this would create a need for manpower with similar education and training. Their planning was based on estimation primarily on the projected needs of the modern sector. The result was that secondary and higher educational institutions began to expand rapidly by offering educational programs which were quite similar to those offered in the metropolis especially British-styled institutions (Castle, 1968; Bacchus, 1981). On the other hand local elites wanted to ensure that local educational institutions to which they sent their children were academically respectable in metropolitan terms (Bacchus, 1981). This trend was further stimulated by the need for a highly trained administrative staff as many former colonies moved towards independence.

After independence in 1962 education in Uganda was influenced by the Castle report (1962) and World Bank Survey Mission (1963). The subsequent development plans after 1962 recommended more investment in secondary education. It was believed that human resource development was one way to speed up economic growth, by producing an educated labor force. For the politicians and citizens education was a basic right, and they both worked together to set up schools. Post-independence educational development therefore, expanded on the assumption that development requires a high level of literacy plus an adequate supply of citizen with technical know how (Castle, 1968; Kajubi Report, 1989).

The curriculum was a replica of the British education system (Castle, 1968). It was strongly academic and humanistic, founded in religion, literature, mathematics and sciences. The educational pyramid which developed functioned primarily as a device for recruiting and selecting the most academically "able" African students. The kind of education offered at the higher levels nurtured researchers and educators who had little interest or capacity for working in local communities, but were suited for serving the modern urbanized sectors at home or even abroad. It was overcrowded and insufficiently related to the ordinary child's actual experience and interests. It alienated the schooled from the unschooled, it developed in them the desire to imitate imported tastes and cultural norms rather than a dedication to continually develop the African cultural heritage (Bacchus, 1981; Furley; 1988; Sekammwa & Lugumba, 1993; Toh, 1987).

The educational programs were deliberately designed to produce specialist areas and the methods were dictated by the definition of knowledge based on the social sciences oriented towards the neutrality and objectivity of knowledge (Olupot, 1995). The top-down teaching and rote-learning strategies developed in students the ability to imitate and conform to the rules established by the scientific community within a given field of study, but little capacity to relate theory to Uganda's urgent social and economic problems.

In 1982, education was influenced by a government program policy of recovery, which aimed at rehabilitation of destroyed structures, facilities and services. It also emphasized the expansion of and diversification of secondary level education. They believed that mass secondary education was an effective way to assist the formerly excluded majorities. For example, in 1981 there were 178 government aided secondary schools with an enrollment of nearly 83,000 students. These numbers increased to 512 and 224,000 respectively in 1988. In addition there were 262 private secondary schools with an enrollment of about 16,000 students in the year 1988. This total enrollment represents only

11.4 percent of the national age group of 14-19 years compared to the sub-Saharan African average of 20 percent (Kajubi Report, 1989). This was the time when ten National Teachers' Colleges were created to meet the demands for secondary school teachers.

The English language is officially used in the education system from kindergarten since it is the official national language. The values and language used in formal schooling, hence, is alien to the majority of people outside the elite class. Since education in Uganda is not free the majority of the urban and rural poor do not go to school.

There is a high drop-out rate and grade repetition among the poor. Because of unequal access to education for girls and boys, literacy rates for women lag behind men. About 38 percent of the women in Uganda are illiterate; 43 percent have received some education and only 7 percent were enrolled in secondary schools by 1988. Official enrollment for primary school is 80 percent for boys and 63 percent for girls (World Bank, 1993). At all levels, enrollment ratios in Uganda lag well behind the averages for low-income countries.

The NRM government is very supportive of female emancipation and the president himself is determined to push it as reflected in his book (Museveni 1992):

> ...we are determined to do just that because we cannot talk about democracy without involving women in the nation's governance. They form slightly more than 50% of our population. If democracy is about equality and social justice then women who contribute around 60% to our agricultural production (the mainstay of our economy) and produce 80% of our food have to be taken more seriously (p.100).

The government White Paper addresses the issue of girl's education and recommends among other things, co-educational schools to enable both sexes to grow up together and appreciate each other's potentials and capabilities. The NRM government has also implemented 1.5 points for girls entering university as an affirmative action to promote girls' education. To date however, there has not been a systematic policy of non-sexist education in schools to help overcome cultural and social barriers to participation of girls in education.

The government's new initiatives and reform in the White Paper require external support and this depends in turn on donor willingness and preferences. The funding agencies may make provisions of support conditional on the adoption of specific policies, priorities or programmes. In line with the education for all campaign launched at the Jomtien International Conference, the agenda today is "Universal primary education." Currently there is a project in Uganda on elementary teacher training supported by outside donors. The British Council is also funding the English Language project, as well as Science in the National Teachers' Colleges.

Teacher Education in Uganda

There are three main routes to the preparation of teachers in Uganda. The lowest grade of teachers are grade three teachers who are admitted into teacher training colleges after they have obtained a School Certificate of Education. It is a two year program which enables them to obtain a "Grade Three" teaching certificate. The teachers from these colleges teach in primary schools. The National Teachers Colleges admit students who have just completed senior six (Uganda Advanced Certificate of Education).They also admit grade three teachers who wish to upgrade to grade five level. It is a two year training program and the students graduate with a diploma in education. Grade five teachers were originally trained to teach senior one and two, but with the shortage of teachers, they teach up to senior six in some secondary schools of Uganda. The University route admits senior six leavers and passes graduate teachers out after three years.

At the time Uganda was approaching independence, it was realized there was an urgent need to provide quickly for the untrained human power requirements of the administration and the modern sector in general. There was therefore a great emphasis on expanding secondary and tertiary education. In 1960, there were twenty one secondary schools, and in 1965, sixty six secondary schools. It was difficult to attract Ugandan graduates in large numbers to the teaching profession at Makerere University since employment in the public service was better paid. For many years Uganda depended on expatriate teachers at secondary school level which was culturally unsatisfactory and expensive, although donor countries helped to meet the expenses involved, such as travel.

To solve the problem of a shortage of secondary school teachers, the government introduced a Grade V teacher scheme in 1965 whereby non-graduates with good school certificates took a three year course at Kyambogo. The National Teachers College Kyambogo qualified them to teach in the lower secondary forms and even up to school certificate in their specialist subject. A two year course for higher school certificate holders was added later (Furley, 1978).

It was observed by McNamara (1989) that, as a result of the low pay and relatively poor conditions of service, almost all students admitted to the teaching profession were failed candidates for the academic high school or university. Many teachers therefore do not enter teacher's college with the most appropriate aspirations. It was also observed by Kitchen (1962) that Africans who were trained as secondary school teachers would take employment in other fields offering greater prestige, better salaries, special allowances and better living conditions. Today, the same trend has continued in that the University first selects the cream, and the remainder of candidates are then allocated to teacher training colleges. Furthermore, trained teachers to date have been leaving the teaching profession to join other lucrative jobs (Brett, 1994). During the Amin regime there was a massive brain drain to neighboring African countries. By the early 1980s there was an acute shortage of secondary school teachers in both government and private schools. This was a result of another wave of marsh rooming secondary schools in both rural and urban areas. This expansion of secondary schools was followed by the establishment of more National Teachers Colleges in addition to NTC Kyambogo. There were now ten National Teachers Colleges, one in each region. The Ministry of Education and Sports therefore was not prepared for this expansion and, in fact, did not have any rules and regulations for setting up a tertiary institution of learning.

The colleges were formally primary teacher training colleges which were upgraded. The result was that the government was only able to pay salaries for teachers and barely enough money for the maintenance of students. Other facilities such as books, equipment, housing were not provided. This is clearly noted by the Kajubi report (1989):

> ...Facilities and equipment in the tertiary level institutions are in poor shape. Furthermore the cost per student is high and the entire expenditure, including students living costs is borne by the government (p.8).

The situation has not changed much today, especially with the influence of IMF restructuring policies which have cutback on the funding of social services, including education.

The National Teachers Colleges (NTC) when formed were put under the umbrella of the Institute of Teachers College Kyambogo (ITEK), which awards the diploma of education to the graduates of the new colleges. The curriculum used is also from ITEK for the purpose of maintaining standards. The number of students is determined by the size of the college and for that matter some colleges admit as many as 300, while others take only 150 students per year.

Teacher Education Programs in NTCs

The curriculum in these colleges includes the following course areas: principles of education theory, which includes history of education, psychology of education, sociology, and philosophy of education. Students study the curriculum and general methods of teaching. Two teaching subjects include specialist methods of teaching each of those two subjects. There is a course offered to all students called "Development Studies".

School practice as part of teacher training is scheduled twice for the whole course. The academic programs in NTCs are centrally managed by ITEK which, through the subject panels, designs the curriculum for each subject and moderates examination questions set by the college lecturers.

Roles of Teachers and Aims and Objectives of Teacher Education

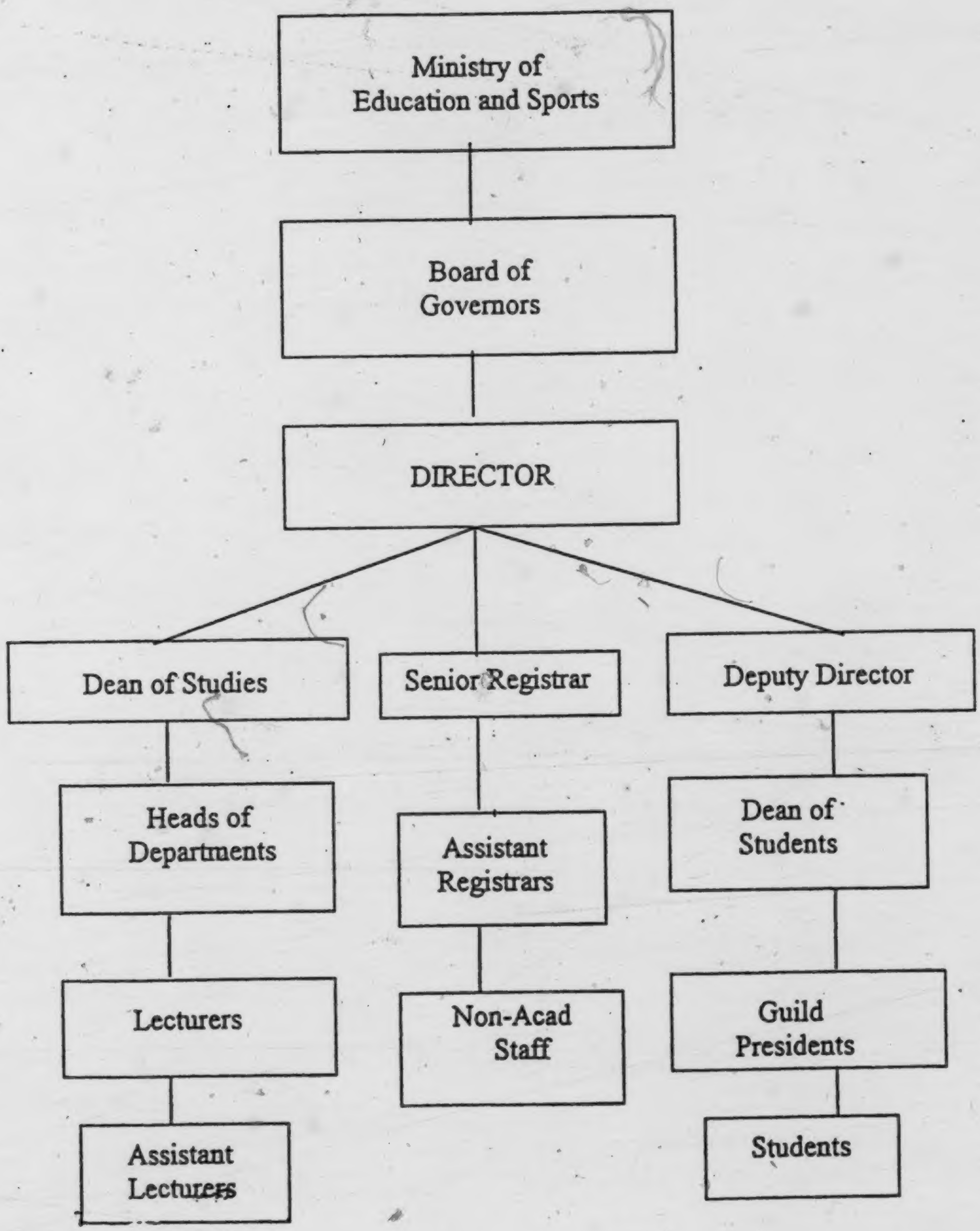
The Ministry of Education and Sports, according to the White Paper, is trying to streamline the administration of the NTCs. The expected roles of lecturers and their conditions of service are now clearly written down (Appendix 3). The White Paper also endorses broad aims of teacher education which all teacher training colleges should use as guidelines. Specific aims of secondary school teacher training are also identified and endorsed by the White Paper (Appendix 3).

However, the objectives and roles of teachers as identified in the government White Paper do not take into consideration the teacher as a person with a history, personality, needs, but rather sees him/her as an object to be shaped into a perfect professional. Teacher educators like Apple (1994), Calderhead (1993), Giroux (1980), Shor (1988), and Zeichner (1987) to name a few would raise questions like: Were the teachers in the classrooms of Uganda today consulted to find out through their own words what they feel they are capable of performing? What are the teacher's feelings and attitudes towards these roles and responsibilities prescribed from above? Were these roles and responsibilities identified in concrete situations with respect to concrete tasks and subject matters? With regard to teacher education objectives, there are issues to be reflected on such as: Did the White Paper take into consideration the individual social, cultural, political and economic context of each college, the lecturers and learners when formulating these objectives? Does the learner contribute to the creation of knowledge in the training process? Do the learner and the teacher educator have a contribution in developing and reshaping this curriculum? Do the variables above affect the learning and training of teachers and, if so, how will they be dealt with within these specific objectives to be accomplished in the specified time? These are some of the issues to be reflected on when analyzing the roles and objectives of teacher education endorsed by the Government White Paper of Uganda.

Relationship Between National Teachers Colleges and the Ministry of Education and Sports

National Teachers Colleges (NTC) are directly under the Ministry of Education and Sports which finances the colleges. (Figure 1.) The ministry also appoints, promotes, disciplines and dismisses directors and lecturers through the Teaching Service Commission. The Joint Admissions Board made up of members from tertiary institutions

Figure 1. Relationship between NTCs & Ministry of Education & Sports


Ministry of Education and Sports
Board of Governors
DIRECTOR
Dean of Studies
Senior Registrar
Deputy Director
Heads of Departments
Assistant Registrars
Dean of Students
Lecturers
Non-Acad Staff
Guild Presidents
Assistant Lecturers
Students

select and admit students from secondary schools and mature entrants to various post-secondary institutions such as NTCs, commercial colleges and technical institutions (Government Document, 1993) The NTCs therefore, simply receive their lists of students from the Ministry of Education and Sports.

The colleges are governed by the Foundation Body and Board of Governors as the extreme administrative head under the Ministry of Education and Sports. Those colleges which were founded by missionaries such as NTC Kakoba, are still under the influence of that church. The Foundation body is allowed to appoint members to sit on the Board of Governors which regulate fees chargeable for registration, examinations, graduation and funds for other purposes. It also helps in the disciplining of students.

Academically the colleges are directly under the control of the Institute of Teacher Education Kyambogo (ITEK). and are connected to ITEK through the Academic Board. This board prescribes regulations governing admissions, curriculum of study, syllabuses and examinations. The college curriculum is made by ITEK in collaboration with subject panels of the ten NTCs. The Academic Board checks on the library facilities, lecture rooms, laboratories, accommodation and academic staff.

The Directors Forum

This is made up of all the directors of the ten colleges in the country and it was formed for the purpose of sharing with each other educational materials since they are under the same administration, implementing the same curriculum, and therefore likely to face similar problems in some situations. This body appoints one person to represent them on all the Faculty boards meetings and Academic Board of ITEK

The Director

These individuals are responsible for the day to day administration of the colleges, in areas of finance, academic, students welfare, which includes accommodation, meals, etc., and staffing, both academic and non-academic. He/she also deals directly with the Ministry of Education and Sports, ITEK and the Board of Governors. He/she liases with the secondary schools for the purpose of school practice as well as with parents. The director works with the help of a deputy director, registrar, heads of departments, academic teaching staff and non-academic staff.

The Students Guild Government

This is a student body elected democratically to represent students' interests to the college administration. They also participate in the decision-making of issues which affect them. The students guild government and associations work closely with other associations in tertiary institutions of learning in Uganda. The colleges get their students from secondary schools where in turn they do their school practice.

Geography Education In Uganda

In Uganda, Geography in education is taught from the primary level as part of the core themes in social studies. It becomes an independent subject in secondary education as well as in higher institutions of learning. The objective of teaching Geography is to fulfill some of the general aims and objectives of education (Government Document, 1990-95)

Geography in Primary Education

At the primary level, Geography education fulfills the objectives of literacy, numeracy and communication skills. It helps in the development of an understanding and appreciation of the environment for the purpose of caring and protecting it. Through geography, children learn about their national culture, develop love for one another and care for the whole community. Geography also develops in the children moral and spiritual values of life, as well as a sense of unity and responsibility to the country. In primary schools children learn and acquire a lot of geographical knowledge, concepts and skills. In regional Geography, they learn about their country Uganda in general, in terms of its size, location, population, economy and urbanization. They acquire simple skills of map reading, and drawing of maps and graphs. In Physical Geography, they are exposed to simple concepts of physical features; mountains, rivers, lakes, plains and plateaus. Climate is studied in its simplest form and includes the formation of rain, measurement and recording weather. The study of vegetation includes types and how it can be exploited and conserved. Wildlife and tourism is a big topic covered in social studies. Most of the knowledge and skills are acquired, memorized, and reproduced in the Primary Leaving Examinations.

Geography in Secondary Education

In secondary schools, Geography is taught for the purpose of fulfilling the general aims and objectives of education in Uganda. Specific aims of Geography education were formulated based on the national aims and objectives of education. For example, citizenship education stressed in the general aims is covered in the geography aims in secondary education. Promotion of unity, cultural heritage and a sense of self-discipline, ethical and spiritual values and personal responsibility are also values stressed in the general aims of secondary education in Uganda (Government White Paper 1992, p.7). International understanding and cooperation, love and care for the community, development of problem-solving skills are other values stressed in the Government White Paper. Geography in education fulfills these aims and objectives through the various topics covered in secondary schools.

In secondary schools, the Ministry of Education and Sports through the National Curriculum Development Center designed a Geography curriculum for senior one and two. Acquisition of the basic Geography skills and knowledge is stressed. Topics on different types of land forms, climate, map reading and regional studies in selected regions of southern and northern continents are included in the syllabus. Because of examination pressure, regional geography of the southern continents is not taught.

Geography is one of the subjects recommended to be taken by all candidates sitting for the Uganda Certificate of Education. The examination syllabus 273 was designed for that purpose to be covered in senior three and four. Integration of physical and human Geography is stressed in the study of the regions of East Africa, the Rhine lands, North America and China.

In the last two years of secondary education, Geography is one of the optional subjects offered to both Science and Arts candidates. Three main papers are taught: mainly in physical Geography where it is stressed that local examples in Uganda and East Africa should be used in teaching; Uganda where physical and human Geography are studied in an integrated approach; and thirdly studies in development where themes are developed and studied from local areas to global. For example, different forms of agriculture is one of the topics covered and examples are given from any area studied by the student.

Geography in Tertiary Institutions

In the University, Geography is offered to both Arts and Science students in the Faculty of Arts. The Geography department, if fully staffed, offers many courses in both human and physical Geography. There are students who specialize in Geography as 3:1:1 and others, especially education students who take it with another teaching subject, as 3:2:2. Education students are advised to take those courses which they are likely to teach in secondary schools, like geomorphology, East Africa, Uganda, Anglo-America, Africa, and practical papers.

In the Faculty of Education at the University, in addition to the professional training of Geography teachers, two regional papers are offered to undergraduate students: Africa and Anglo-America. Geography students who do not join the university but go to National

Teachers Colleges can take it as one of their teaching subjects. They are restricted to the Geography they are likely to teach in secondary schools. For teachers who teach in primary schools, Geography is taught as one of the themes in social studies.

In other institutions of learning, such as the primary teacher training colleges, Geography appears in the social studies syllabus as one of the main themes. It is also taught as one course in the training of public administrators. The aim of teaching Geography again is to make students aware of their environment for the purpose of understanding it, caring for and conserving it. The administrators of the various parts of Uganda for example need to understand the people and cultural and physical environment of the region in which they are going to work.

Personal Experience

The Geography education I received as a student in primary education was not much different from that received by students today. It was only less detailed and limited to recall of a few facts about Uganda. In secondary education I studied Geography using a colonial syllabus which was still used in schools. In the University the courses offered at that time are still the same as today, although we were not limited to only courses we were likely to teach in secondary schools. I graduated from the university in 1976 as a Graduate Teacher with a Bachelor of Arts and a Concurrent Diploma in Education, with a specialization to teach geography and history. I started teaching geography to senior one, two, and three students using the current syllabus which was introduced in 1973.

In senior one and two the school teaching syllabus concentrated on local geography. I started by teaching geographical skills of drawing maps, sketches, pictures, area, scales, in geography. There was fieldwork around the school, where senior one children drew a map of the school and the use of symbols was introduced to them. In senior two, I taught Latin America, where skills of drawing cross-sections, graphs, pie charts were integrated. In senior three, I concentrated on the continent of Africa and later on the Rhine Lands. There were a number of recommended textbooks available in the schools where I was teaching. For example, there was a series of workbooks on case studies from Latin America and other countries. There were also recommended textbooks for the senior three and four examination syllabus.

In teaching the regional geography a detailed survey of the physical environment and human geography was the common approach. In economic geography, I taught the plantation system of Latin America, cash crop production by peasant farmers and transnational companies in Africa. Irrigation and resettlement schemes, mining and industry were some of the topics I taught the senior three and four students. In the Rhine Lands, I taught the intensive, scientific and mechanized agriculture. In one school I taught North America to senior two and Paper One to senior five and six.

As the economic conditions in Uganda deteriorated textbooks disappeared from schools and teaching became even more difficult without reference books. For example, when teaching about New York city in 1978, I had to photocopy a photograph from a textbook written in 1971 for the students. The purpose of the lesson was to show settlement, urban land use in New York City, and to identify urban problems. As a secondary school teacher I taught according to the syllabus and the prevailing pedagogy.

When I joined the university as a post-graduate student, one of the assignments in the curriculum course was to analyze and critique the secondary school Geography curriculum. The topic for my Master of Education thesis was a survey of the attitudes of teachers and students toward the methods commonly used in teaching Geography in secondary schools in O-level classes, which actually use syllabus 273. This reflection as a graduate student concentrated on the arrangement of the curriculum, new innovations and pedagogy. Research in Geography education in Uganda has been done extensively, especially by Masters of Education students. However, none analyzed the underlying assumptions, purposes and strategies of Geography education in teacher training colleges. For example, Sekandi (1989) surveyed the perception of Geography by school teachers as they implement the Advanced Level Geography syllabus. Higenyi-Dumba (1986) looked at the effectiveness of learning Geography in schools using fieldwork. Nyote (1988) examined the various methods of teaching school level Geography and their effectiveness. Kabwa (1989) compared the use of photographs/pictures and maps and their effectiveness in teaching geography in senior three. These are a few examples among many research topics in Geography, but none have actually used a global and peace education theoretical framework and perspectives to study Geography education in Uganda. Furthermore Geography education in National Teachers Colleges have not been to my knowledge a subject of doctoral or other scholarly research.

As a teacher educator at the university I have been training geography teachers in the conventional way. The students reflect on Geography syllabus 273 and 250 for the Uganda Certificate of Education and Uganda Advanced Certificate of Education without examining the underlying assumptions, purposes and strategies of the syllabus. However, over the past few years, as a graduate student at the University of Alberta, after being exposed and motivated by global and peace education, I have started thinking of integrating the global and peace perspectives in Geography teacher education in Uganda.

Global and peace education in Uganda is not new. It is manifested in the non-government organizations working through the church, children and youth groups, in women's organizations and schools and many other organizations. These organizations have been addressing issues of structural violence in marginalized and minority groups, violation of human rights, women's issues, poverty among the masses, victims of war, orphans, refugees, and many other issues. I have been involved in peace education while working with women's groups in the church and other non-government organizations in Uganda. It was revealed to me through these workshops, seminars, short courses that women's work is not recognized in the development process. Working with youth groups, both in schools and in the community, made me start questioning the relevance of the education system in Uganda.

Exposure to formal global education in Uganda through a workshop at Makerere University under CIDA-CIED Alberta-Makerere linkage, Alberta Global Education Project conferences/workshops, and at the University of Alberta, including the 1994 international Institute on Peace Education have enlarged the possibility of critically addressing those development issues through education. Key issues which have been raised by global education include structural violence, militarization, human rights, cultural solidarity, environmental care and personal peace (Hicks, 1990; Reardon, 1988; Toh, 1989). This kind of education may help the young generation of Uganda develop a new attitude toward social inequalities and tribal conflicts, which can lead towards more peaceful local, national, and global relationships. Certainly this study seeks to explore through the voices of Geography teacher educators, student teachers and policy makers, the possibilities of a transformative geography education drawing on the principles, concepts and practices of global education which, as noted above, are already emergent in Ugandan educational activities.

Statement of the Research Problem

The major intention of this study was to carry out a critical analysis of the current Geography education programs in National Teachers Colleges in Uganda. The Geography curriculum in NTCs is designed to prepare the teachers who teach the secondary school curriculum. While there are now innovative trends in Geography content and methods of study, the secondary school Geography curriculum has not changed much to allow for the needs of the students and citizens in the present Ugandan context. The purpose of this study is to understand the orientations and paradigms emphasized in the Geography programs as seen through the eyes of Geography lecturers and student teachers. The study tried to clarify possibilities for enhancing Geography education in National Teachers Colleges through ideas and strategies of global education. Accordingly this study drew upon the experiences, views and insights of teacher educators, student teachers, and policy makers in order to answer the following research questions:

1. What is the underpinning paradigm or paradigms in the teacher education programs for the geography subject area at the National Teachers Colleges in Uganda?. Specifically the following issues were explored:
   (a) What criteria mark the content of geography in NTCs ?
   (b) What criteria are used in the selection of content of Geography as a discipline ?
   (c) What methods are used in teaching Geography in lecture rooms ?
   (d) What Geography methods are passed on to pre-service teachers to be used in their classroom teaching in secondary schools ?
   (e) Whose interests are served in the selection of content and methods of teaching?

2. What curriculum content, pedagogical values, attitudes, strategies and organizational structures and relationships would require transformation in the geography education programs at the National Teachers Colleges, in order to fulfill the goals and objectives of global or peace education. Specifically the following issues were explored:
   (a) Which topics in the content of geography need revision/removal/replacement?.
   (b) Which topics in the content of geography can be integrated with global issues and problems?
   (c) What methods currently used in teaching geography need revision/replacement?.
   (d) What Methods will easily be integrated and adopted to promote critical learning and teaching?
   (e) How can the geography programs be made community based?
   (f)How can teacher education programs be organized to accommodate global education so as to encourage reflective teachers as well?

3. What possibilities would the teacher educators, student teachers, and policy makers envision for integrating geography education in a global education paradigm? Specifically, the following issues were explored:
   (a) What values, attitudes and skills in global education will they appreciate?
   (b)What content and methods will promote these values and attitudes?
   (c) What expected outcome are they likely to appreciate?

In sum, this study involved a range of practitioners and participants in Geography teacher education in Uganda including lecturers in National Teachers Colleges, policy makers, curriculum designers and student teachers. The study analyzed the relationship between these components as shown in figure 2.

Significance of the study

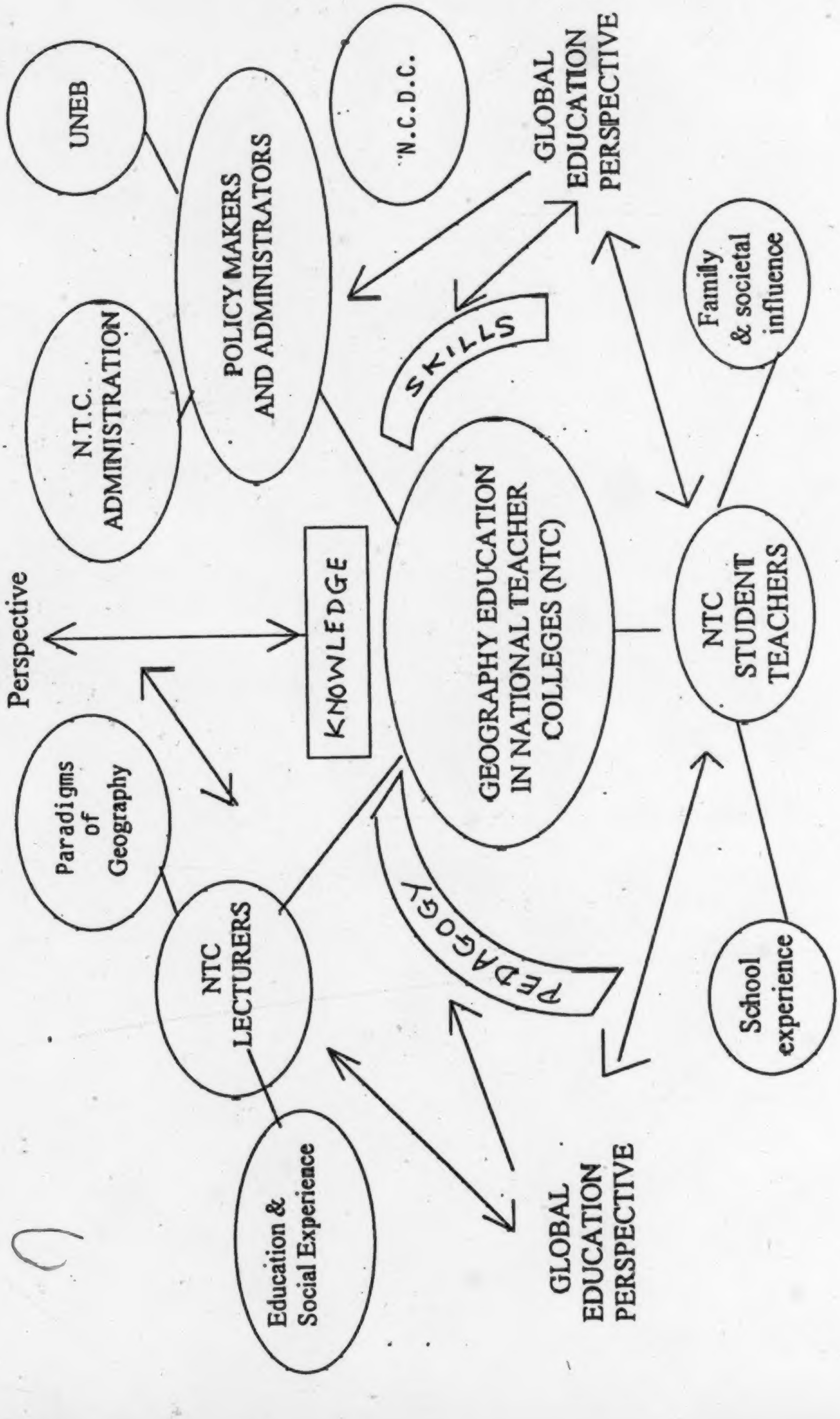
By presenting alternative models of curriculum content and methods for critical examination of the college's programs it is hoped that the results of this research will encourage teacher educators to explore the validity and relevance of a transformative paradigm in teaching Geography. Through an analytical framework that draws on insights of global education, the study will hopefully facilitate teacher educators to consider the possibilities of enhancing Geography programs with global perspectives. The results will be also useful to the Ministry of Education and Sports of Uganda, especially in Geography and related fields. For student teachers who are being prepared for their teaching career, this study will yield ideas and issues of potential assistance in strengthening their capacity for teaching Geography in a creative and relevant way. Finally, it also provides knowledge in teachers' perceptions of their educational experiences which may be used by teacher education professionals to better understand the perspectives and needs of students and therefore, improve their theory and practice in Geography education.

Arrangement of the Thesis

The thesis is arranged in seven chapters. Chapter One provides a background to the study, beginning with an overview of Ugandan society across historical, economic and political dimensions of development. Some key issues and problems of education in Uganda are clarified before a statement of the research problem and its significance.

Chapter Two is a critical review of literature relevant to understanding the themes raised in this research study and for suggesting conceptual issues useful to theorizing on the data collected. The first section focuses on the alternative paradigms of Geography education from a historical perspective; secondly, the goals, assumptions and strategies of the field of global and peace education are examined. A link is then drawn between these paradigms of Geography education and global education perspectives through the idea of a transformative framework for Geography education. The last section of Chapter Two looks at some literature on teacher education programs with particular attention to critical theorizing and analysis of dominant theory and practice.

Figure 2: Conceptual Relationships between Actors, Institutions & Environmental Forces in Geography Education of NTCS


UNEB
N.C.D.C.
POLICY MAKERS AND ADMINISTRATORS
N.T.C. ADMINISTRATION
GLOBAL EDUCATION PERSPECTIVE
SKILLS
Family & societal influence
Global Education Perspective
KNOWLEDGE
GEOGRAPHY EDUCATION IN NATIONAL TEACHER COLLEGES (NTC)
NTC STUDENT TEACHERS
Paradigms of Geography
NTC LECTURERS
PEDAGOGY
School experience
Education & Social Experience
GLOBAL EDUCATION PERSPECTIVE

Chapter Three discusses the research methodology used in this study. It outlines the locality of the colleges where the research was conducted and gives a detailed account of methods of sampling, instruments of data collection, methods of analysis and limitation of the study.

Chapters Four, Five and Six present a reflective analysis and interpretation of research data collected on diverse dimensions of the Geography programs in selected Ugandan NTCs. Chapter four is primarily concerned with the analysis of Geography course outlines which included objectives, content and pedagogies used in NTCs and schools. Voices of student teachers, lecturers, directors of the selected NTCs, members of the NCDC. Geography panel, officers from the Uganda National Examinations Board (UNEB), and policy makers from the Ministry of Education and Sports are recorded. Chapter Five concentrates on the participants' views on global issues and problems and their reflections on the possible integration of such issues into the Geography curriculum. Chapter Six discusses issues of teacher education, school practice, democracy, community, Geography clubs and peaceful pedagogies. The final chapter presents a summary of the major findings of the study, key conclusions including a theoretical reflection and synthesis on transforming Geography education in Uganda's National Teachers Colleges and some implications for further research.

CHAPTER TWO

CONCEPTUAL AND THEORETICAL FRAMEWORK.

Introduction

This study seeks to examine critically the geography education programs in Uganda National Teachers Colleges in terms of their major paradigmatic assumptions, content, pedagogy and organizational framework. The voices of geography teacher educators, student teachers, policy makers and administrators will provide empirical data for this examination. A second purpose of the research is to endeavour to understand the questions and possibilities raised by the emerging field known as global education. Can the insights of global education world-wide (including those in southern contexts similar to Uganda) contribute innovative ideas for the theory and practice of geography education in National Teachers Colleges?

Given these research purposes, it is relevant to review the literature and to highlight issues, insights, and analyses for guiding conceptual and theoretical frameworks for this study. To begin with, the subject field of geography and its role in educating youths is clarified. Alternative paradigms of approaching the geography curriculum are contrasted in this discussion. The theory and practice of global education is then reviewed to pose issues and questions that geography education needs to consider in the present global context, as well as local frameworks for national development. Finally, some implications of a transformative geography education that is informed by global education perspectives will be presented. Together, the conceptual and theoretical understandings reviewed in this chapter will help guide the conduct of this research study.

Paradigms of Geography

Geography as a school subject focuses on three main components: the physical environment, the societal environment, and the created environment. Each component has many sub-components which interact with each other within and across the component's boundaries. These components vary in their characteristics over space; one or two may dominate, thereby defining a place, while in a majority of many places various components interact (Johnston; 1993). The understanding of these various components, their interaction and the impact of such interaction is at the core of geographic scholarships. The way geography is defined over time affects the way it is taught in schools and universities.

According to Edwards (1990), geography is a totally artificial construct that is produced in response to varying time and space, and specific social, economic, and political forces

A paradigm is a structure of philosophical beliefs which guides researchers in the selection and solution of problems. A philosophy is an evaluation of how the discipline has conducted research, what questions the researchers have asked, and how these questions have been investigated. Because of the diversity of beliefs, there is a diversity of philosophies. A set of philosophies with sufficient commonality of focus and approach may be adopted by a group of practitioners and, thereby, may constitute a paradigm. The major philosophical, methodological and theoretical viewpoints in a discipline at a given time constitute the thought of that discipline. In geography, different terms are used interchangeably with the notion of paradigm, namely traditions, themes, approaches to research conceptual frameworks, and modes of approach (Biddle, 1976). A change to a new paradigm in geography can often be correlated with changes in the philosophy and/or methodology of one of the physical, biological and social sciences (Biddle, 1976; Huckle, 1980; Walford, 1981).

Geography education in schools today is still a combination of environmental determinism and scientific quantitative paradigms although other paradigms are slowly surfacing. There is an overemphasis on physical rather than social geography, and neglect of a wide range of human experiences. Political geography has been neglected and a great focus on extractive, primary and secondary industry at the expense of other kind of work. Environmental deterministic explanations ignore the constructive (and destructive) role of culture in the way people relate to environments. They view the productive activities of society using natural resources as being the most important, and that productive activities are those where the use of natural resources is most direct (Gilbert; 1986).

The aims of geography as a school subject have always been influenced by the prevailing philosophy of education, the economic climate and the paradigm of geography. For example, in the nineteenth century, geography was justified in Britain for its utility in commerce and trade. It was, therefore, important to teach children about the origin of raw materials for British industries and the destination of manufactured goods.

History of Geography as a Discipline

The ancient Greeks made the first major contribution to the development of the subject (Graves, 1984; Holt-Jensen, 1988). Examples of such scholars include: Homer (c. 850 BC.), Herodotus (c. 485-425 BC.) and Eratosthenes (c. 276-194 BC.).

In the era of enlightenment, scholars like Immanuel Kant (1724-1804 AD) regarded geography as part of empirical knowledge since it was a science derived from the experiences of men. Kant, Humboldt (1769-1854 AD.) and C. Ritter (1779-1859 AD) laid the scientific foundations of geography as a branch of knowledge. Through research structured geographical material, both scholars documented the similarities and differences between countries and regions for comparative study; geography remained descriptive (Graves, 1984; Holt-Jensen, 1988).

The Environmental Determinism Paradigm

The publication in 1859 of "The Origin of Species by Means of Natural Selection" by Charles Darwin (1809-1882) was another major step in the development of geography as a discipline. This led to the idea that human life on earth was to a large extent molded by the kind of physical environment in which he/she lived. Geography became a study of how human beings responded to their physical environment, making it possible to predict the way they ought to respond to a new milieu. The prediction aspect made the discipline very useful to the colonizers who were scrambling for territories abroad (Graves, 1984). This instilled in the people the belief that their way of life was controlled to some extent by the physical environment; the process whereby organisms adjusted to the exigencies of their environment was seen as a simple cause and effect relationship. These evolutionary theories caused Western nations to believe that their development was a moral evolution and as uncontrollable as the evolution of the human organism. Climate was regarded as the main determinant which provided Europeans their supposed superiority in the struggle for survival; poverty in South countries was explained in terms of unsuitable climate. Ratzels' work titled "Political Geography," published in 1897, describes the evolution of nation states (Graves, 1984; Holt-Jensen, 1988). In Germany, geography was a widespread school subject by 1850. Geography education at this time in Europe served an important political purpose of reinforcing and popularizing the idea of nation states. It provided a better understanding of the economy and possibilities of world trade and development. This paradigm contained strong elements of racism, neglected the disadvantaged, and depreciated the social and cultural aspects of South societies in favour of those of the West (Holt-Jensen, 1988).

As a result of the work of Darwin, geology and biology became the most important branches of the natural sciences. The study of geological and biological development over time was regarded as very important. The study of landforms became the leading field of research for most of the professors appointed to Geography Chairs in the latter half of the nineteenth century. Physical geography emerged as a very popular school subject during the last third of the nineteenth century. Geographical research was concerned with identifying the "laws of nature". Humanity's achievements were to be explained as consequences of natural conditions (Graves, 1984; Holt-Jensen, 1988; James, 1969). Ratzel, widely recognized as the founder of human geography, was strongly influenced by such ideas. He stressed the extent to which humanity lives under nature's laws. Environmentalism is also evident in Ratzel's work, especially in "Political Geography" (1897), in which the establishment of states is seen as an evolutionary necessity.

The impact of environment was in fact related to the rise of civilization in the mid-latitudes and the lack of development in the tropics to climatic conditions. There was a conviction that large militaristic and industrially-advanced nations were natural developments essential to world order and social progress. It was the belief that these were the more desirable units of political organization because they were the most assertive actors in the global arena. Ethnic groups and national separatists seeking regional autonomy on grounds of distinctive racial, cultural, religious, or linguistic traits were scorned everywhere as Balkanization. School textbooks in most countries included strong elements of crude environmental determinism in their selection of topics.

The Imperial and Commercial Paradigm

In this paradigm, geographical knowledge laid considerable emphasis on raw material supplies and little on the distribution of entrepreneurial skills and institutions. Geographers at this time were socially and intellectually close to the progressive sectors of capitalists, sharing the convictions of their contemporaries in industry, commerce and politics regarding idiocy of rural life and the progressiveness of nationalism and capitalism over the moral economies of the peasantry and the craftsmen (MacLaughlin, 1986).

Nation-building and imperial expansion provided cartographers, demographers, physical scientists, geologists and economic geographers with ample, lucrative and stable employment. State-centeredness and ethnocentrism are revealed in the works of leading geography scholars such as Mackinder, Herbertson, Semple, and Chisholm. These scholars made extensive use of cartography, models, statistics and other geographical tools that gave their discipline a distinctive and objective appearance which led to the consolidation of environmental thinking in geography (MacLaughlin, 1986; Hudson, 1985). The influence of physical geography on transport routes was greatly over-stressed and oversimplified in the imperial and commercial paradigm.

Geography, under the influence of social Darwinism, had three tasks: collecting information and sponsoring exploration under the aegis of national geographic societies, satisfying the knowledge demands of government agencies, colonial administrators, military leaders, capitalists and financiers and formulation of scientific theories of sociogeographical problems and development of geography as a discipline of grand theory and scientific generalization (MacLaughlin, 1986).

The Possibilism Paradigm

La Blache (1845-1918) developed the possibilism paradigm as opposed to determinism. Possibilism promotes the belief that the environment provides options from which human beings can choose for development. Blache believed that any physical environment offered a number of possibilities for development or for living, but that what in fact evolved was as much a factor of human culture as of his/her environment. The environment, in other words, does not dictate how human beings must live in a given area. Teachers in secondary schools felt that their main objective was to show pupils how people lived in various parts of the world and how their lives related in some way to their environment (Graves, 1984; Harvey & Holly, 1981). Fieldwork was regarded as one of the most important methods of teaching. Partly because of the strong position of geormophology and physical geography, the deterministic explanatory model survived side by side with possibilism.

The Regional Geography Paradigm

French geographers at this time developed and emphasized regional geography. In Germany and France, regional geography has been regarded as the core of the subject until quite recently, and has contributed much in this field (Holt-Jensen, 1988). Mackinder (1861-1947) had the same perspective of geography although he did not stress regionalism as the French did. He believed that geography helps to bridge the gap between the natural sciences and the humanities. It has an integrating role and demonstrates the relationship between diverse disciplines in the study of a given area. Mackinder advocated a regional synthesis paradigm as a justification for geography education in schools and universities (Graves, 1984). He suggested that geography teaching in schools should be regionally organized so that the content would gradually increase in difficulty, commencing with the study of the local district, before extension into one's homeland and then other natural regions. Unfortunately, the order of treatment of regions in schools developed into a stereotyped approach to regional description commencing with elements of physical and biological environments and ending with studies of human responses within selected regions.

Textbooks presented more detailed knowledge of the physical and biological than the human elements of development. Statements in textbooks overemphasized the physical elements and oversimplified statements about causal relationships. Pupils moved from memorizing the names of capes, bays, rivers, and towns to memorizing facts and figures about each element of the environment for as many regions as the teacher could cover in the time available (Biddle, 1985). Study of indigenous inhabitants and their territories was not promoted since it was not considered relevant to European and colonial children at that time.

There were two main types of regional geography in France and Germany. Landscape chronology concerns specific scientific work of reconstructing former landscape types, for instance, on the basis of relic elements in the contemporary landscape. The use of aerial photographs to detect the ridge and furrow patterns of ancient fields, and the study of lost villages were examples of research used to reconstruct a chronology of shifting landscapes. The concept of landscape ecology is defined as the 'complex of causal and reciprocal connections' between biological communities and their environment in a particular landscape section. In the Anglo-American world it is called human ecology or ecological analysis. Landscape morphology is a form of regional geography that was particularly well developed in Germany between the wars. The focus was on the form and spatial structure created by visible phenomena on the surface of the earth as their unifying form.

Regional studies in British geography had at least three different connotations: those that describe segments of the earth's surface broadly; regional studies which seek to divide the surface of the earth into homogenous or functional areas to varying sizes; and those denoting regional specialization, that is, when an individual geographer devotes a large part of his/her work studying different aspects of some part of the world. Regional studies in Britain were influenced by La Blache and Le Play. Geography in British schools was later influenced by the work of John Herbertson (1865-1915). He divided the world into natural regions basing it on natural rather than human-made criteria in which a region had a unity of configuration, climate and vegetation. He incorporated his ideas in textbooks which he wrote with his wife for the school market, for example, the "Oxford Senior Geography" first published in 1910 by the Clarendon Press. The natural regions soon became the basic framework within which geography was taught in schools in Britain and her overseas colonies. This division into natural regions tended to encourage rote-learning, and teachers used it as a syllabus teaching guide as well as notes for students (Biddle, 1985). Herbertson was imitated by others including Suggate, Stembridge and Stamp. Bernard's "Principles and Practice of Geography Teaching" published in 1933 advocated Herberton's approach. This approach was handed down to pupils as the gospel truth, without questioning the criteria used for such classifications. Secondly, there are too many generalizations made in studying these regions without considering local variations. The impression was given that within these regions, people's lives and work were shaped by the physical environment in which they lived. There were thus regions of nomads, cultivators, wheat cultivators, and so on. These books were used for many years and for the administrators it was a way of reducing costs.

Fairgrieve according to Graves (1984) advocated inductive rather than deductive methods of teaching geography arguing that inductive methods were more scientific because they involved the collection, recording and use of data for formulation of systems. He encouraged the use of fieldwork, sample studies, films, photographs and maps as sources of information. Fairgrieve saw the functions of education as those of helping people to earn a living and helping people to live, and felt geography had a lot to contribute to both. Secondly, he felt geography helped to train future citizens to accurately imagine the conditions of the great world stage and so help them to think sanely about political and social problems around them (Graves, 1984). Fairgrieve supported the regional paradigm and encouraged students to look at regions from many points of view so that they could understand the concept of regional synthesis and the unique character of particular regions (Graves, 1984; Biddle, 1985).

Regional geography was criticized for many reasons. By emphasizing the uniqueness of each area, it depends largely on memorization because it lacks a sufficient framework of general concepts. It omits many factors such as human behaviour, nature and quality of life, technology, and urbanization which greatly affect human geography. It does not recognize the many similarities that exist over wide areas of the earth's surface, and presupposes that valid boundaries may be drawn around regions of a multi-functional character (Graves, 1984; Biddle, 1985).

The Thematic Geography Paradigm

Thematic geography was developed in the post-war period, as thematic regional surveys were utilized to study a particular problem related to geomorphology, climatology, economic geography and settlement geography. In the U.S.A., W.S. Davis (1850-1934) gave direction to the study of geomorphology through his "cycle of erosion" theory of landscape evolution. Researchers, having acquired a basic understanding of geology, climatology and some history, proceeded to compile regional monographs of medium scale or small scale areas. Explanation of land use patterns were offered in terms of historical, economic and physical factors. The pressure to specialize and tackle a limited field led to more and more research workers concentrating on thematic aspects of geography, such as agricultural, urban, social, and settlement geography and so on.

The Quantitative Scientific Paradigm

Parallel to this trend towards specialization was a development of the tendency to use quantitative techniques of analysis. This development first occurred in North America and Sweden during the 1940s and 1950s and spread to Britain in the 1960s. The explanation of phenomena, whether in geomorphology or in economic geography, required a body of theory to be developed, and such theory might be expressed in mathematical terms or tested using statistical techniques. There was a large output of books and research papers in the new scientific style in both British and American universities. As a guide to teaching,. Chorley and Hagget (1965, 1970) published a book entitled "Frontiers in Geographical Teaching" which influenced many teachers and geographers.

The most significant change that occurred was the adoption by human geographers of scientific methods and the development of a body of theory to explain spatial phenomena. This was made evident by the work of Harvey (1969), "Explanation in Geography" which pointed out the distinction between scientific and normative theory and showed that geographers can use both. Models to be used in geography were formulated at a large scale and this led to the publication of "Models in Geography" by Chorley and Hagget (1967). One type of model which has been widely adopted by geographers to help in the explanation of phenomena is the system, for example, a river basin can be described as a system.

In the 1960s, the world became generalizable and not so particular. Macro concepts and ideas, knowledge and understanding from scientific geography trickled into schools. The language of the curriculum changed from a matter of content to a matter of concepts and "big ideas". The children were taught a geography of spatial distribution and spatial interaction, location, relative location, centrality and accessibility (Slater, 1992). In the 1970s the dimension changed to human geography emphasizing the subjectivity of personal experiences and places. The emphasis was on concepts of places, place feeling, and sense of place in opposition to the space and spatial relations of scientific geography (Slater, 1992).

Quantification is criticized for using general laws at a high level of abstraction, leaving out aspects of place and time. Ethics and values that cannot be measured quantitatively are ignored. The models and theories tended to represent ideal conditions, rational "man" and a featureless surface which do not exist in life (Gregory, 1978). This rational "man" was uncritically blessed with perfect predictive ability and knowledge of all cost factors. These models encourage geography students to account for human actions in terms of physical or social causes alone, and fails to challenge them to accept personal responsibility for their own beliefs, actions and decisions. It reduces people to the same neutral status as all the other elements and processes within the world ecosystem (Fien, 1979).

Quantitative models were built to cope with aggregate and hard data easily expressed in numbers. "Soft" data, which concerns human attitudes and deviations in behaviour, could not easily be handled in such models. Emotional and psychological aspects of human behaviour are not accounted for in explanations of historical events. Models and theories of development formulated in quantitative geography were not always applicable in South countries. For example, in North industrialized countries, large-scale rural-urban migration and the rapid growth of towns did not take place under colonialism. In South countries under colonial rule, capital was invested into various kinds of public works, railroads, public utilities for exploitation of resources for export. Colonial urban centres acted as marketing and administrative centres and not as focal points of industrial growth and expansion. Demand for labour in colonial towns was limited and not facilitated by the metropolitan bourgeoisie. Migration to towns was controlled by the colonial states so as to guarantee the continuous production of export crops and the associated construction of the infrastructure necessary for maintaining this export sector (Slater, 1977).

In quantitative geography, quality of life or social well-being is narrowly defined in terms of easily measurable phenomena such as employment, earnings, health and education. While these social indicators can be fairly easily measured, they may not necessarily reveal root causes of poverty. Factors such as racism, sexism, and unequal access to power and information may often be disregarded (Billinge, Gregory and Martin 1984; Holly and Harvey, 1981).The history of people is disregarded and yet this can be constructed by analyzing the ways in which classes emerge, conflict and disintegrate, market relations, uneven development, and the role of the state. The quantitative paradigm tended to pay little attention to the role of relations of authority and domination in the organization of space. However, as critical geographers have argued, what is essential in geography education is to recognize the deep interconnectedness between the production of goods and the reproduction of classes (Warf, 1986).

The High Technology Paradigm

Under the influence of a trickle-down theory, it is believed that development could be fostered by investment in the modern sector of the economy, especially in South countries. Transnational corporations with capital and advanced technologies are, therefore, encouraged to invest in agriculture and industry in the South. For example, plantations of sugar cane, coffee, cotton, peanuts, tea, rubber and many other commercial crops are started in such countries with the hope of generating income for their labourers (George, 1976; Timberlake, 1985). In many cases, multi-purpose development schemes where large dams were constructed for generating electricity and water for irrigation were developed for example in Ghana, Sudan, Zimbabwe to name a few (Timberlake, 1985). In other sectors of the economy, investment in assembly plants is concentrated in urban areas or where mining happens to take place. Geography education in this paradigm concentrates on teaching about development using high technology to produce goods for sale. It also maintains that such goods are exported for the purpose of increasing growth for the country as well as employment in the modern sector. This paradigm's belief in the importance of technological modernization for south development has however been challenged by critical analysts who point out that growth and modernization have not necessarily trickled down to the poor majorities who produce such goods (Timberlake, 1985; Nkonoki 1991). Food crop production, people who work in such development schemes, and a fair distribution of social services in the country are not considered. Affordable or appropriate technology is usually not discussed in geography lessons by the high technology paradigm or included in geography textbooks.

The Social Welfare and Radical Paradigm

Increasingly the field of geography has reflected a growing concern for the welfare of special groups of people such as the poor, minorities, women, children, and the aged, as well as a concern for the position of the individual within mass society. The study of such spatial inequalities by many scholars such as Binns (1996), Smith (1979) and a number of others exposes the nature of the unequal distribution of wealth spatially and analyzes the processes which have led to such situations of structural violence. (Biddle, 1985; Graves, 1984; Holt-Jensen, 1988).

Social welfare and radical perspectives have been incorporated into several of the leading curriculum statements in England (Slater, 1992). Radical geography raises peoples' consciousness about individual opportunities, individual restraints and society. Radical geography is described by Graves (1979) as

> ....a study with a commitment to social justice, however, that may be defined. In that sense it is action-oriented rather than academically oriented, ...seems to assert that all existing theory in geography results from the ideology of capitalism and that only by using the penetrating Marxist analysis of society will it be possible to develop practical theories which will serve the purpose of finding revolutionary solutions to the problems caused by the imminent collapse of capitalism (p. 263).

Although radical geography has not yet been accepted in the mainstream conventional paradigm (as the quotation above implies), its approach is holistic and more likely to meet the needs of the learner and society. This approach is slowly being integrated into current research in geography education. A historical analysis of places and regions is presently developing among researchers which seeks to understand patterns of power and social structures particular to a region or economic unit and the social relations characteristic to it.

Geography in this paradigm recognizes the social and political decision-making to be based on values ideologies and socio-cultural biases in people's thinking. Ideology has to do with the sets of beliefs and values which we have been inducted into, hold to, and operate within. Gilbert (1984) argues that in order to understand any society, nothing is more revealing of its values, central beliefs and dominant ideologies than the way that society explains itself to its young people.

Welfare and radical geographers are opposed to paradigms of geography which do not recognize the importance of peoples' differing perceptions of the environment around them. They believe that a person's view of the world is shaped by past experience, the culture they live in, and their personal characteristics. The role power differentials play in exploring geographical "facts" is also crucial in this transformative paradigm of geography education. Evidence of their work is provided in Harvey's (1973) "Justice in the City", Smith's (1977) "Human Geography; A Welfare Approach" (1977), Huckle's (1983) "Geography Education: Reflection and Action" (1983), and Hicks'(1988) "World Studies." Practitioners of welfare or radical geography like Hicks and Huckle have demonstrated that geography education can be enriched by linking it closer to societal realities.

A reconstruction ideology in welfare and radical geography seeks a renewal of culture through education and is founded on the belief that pupils should be given the means to both challenge and alter society. There is an increased realization that a deteriorating biosphere is but a symptom of human beings inner condition, of the way he/she views herself/himself and the world. The environmental movement is seen as a reaction by believers in human values against the excesses of industrialism (Graves, 1984; Holt-Jensen, 1988). In order to make geography courses more relevant to society and its needs, it should focus on the behaviour and organization of humanity in a decision-making framework, to raise questions of values, and to be more humanistically oriented (Shortle, 1971).

Attitudes and values are concepts which are advocated in the new paradigm of geography. Attitudes can be defined as packages of beliefs and feelings which influence us in decision-making. When focused on a specific object or situation, attitudes predispose us to act in a preferential manner and they reveal our preferences in relation to some object or situation. Beneath our attitudes lie our values, those concepts and ideas which we most strongly affirm, believe in, hold to as important, desirable, worthwhile and necessary in our pursuit and/or achievement of the good life for us, for society as a whole and our culture. Values are very strongly held attitudes to which we are deeply committed over a long period of time and which we do not readily change. Attitudes and values are often expressed through personal and group relationships and are articulated by characters in their beliefs, for example, about family relationships. In inquiry-related geography lessons our attitudes and values influence our reactions, give us preferences, and direct our actions in certain situations. In a welfare/radical geography paradigm, there are value positions which students can explore; care for the environment, human rights, justice, respect for other cultures, preserving landscape quality, use/misuse/sustainability of environment, absence of exploitation, and responsibility towards the environment. Knowledge based on our perceptions and direct personal experiences will help learners in taking value positions when considering such topics (Pinchemel, 1982; Slater, 1994).

The Feminist Geography Paradigm

With the growth of feminist theorizing and the global movement for women's human rights, a feminist paradigm in geography has emerged. In dominant paradigms, women's roles are stereotyped as primarily "domestic" and contribute little to economic growth. According to a feminist analysis, the traditional focus placed upon commodity production is insufficient to understand women's' work and its roots in patriarchal relations given the increasing responsibility of women around the world. They are responsible not only for subsistence production which sustain families but also participate in modern income generating activities, and in many cases, support the drain of labour to unprofitable cash cropping or urban migration. The existing economic theory does not, however, take into account women's' unpaid work. If data were desegregated by sex and women were considered more than a demographic variable their contribution would be visible (Thomas and Skeat, 1990).

Sexist language is still embedded within the Geography discipline, for example, sexist terms such as 'man-land relationship', man, space and environment and so on. Much of the research, and consequently the teaching of geography, focuses on the experiences of men. Topics have a male focus, whereas voluntary and domestic work performed predominantly by women in many parts of the world are ignored. Male bias in research techniques is even more obvious. In some surveys, generalizations are made about households from a male respondent. The concept of household in western cultures means a male as head of the house, as a breadwinner of the family, who shares the wealth equally with his wife and children. It assumes that the income acquired by the man as head of the household will trickle down to the rest of the family, which may not be true. This makes female heads of households invisible and, therefore, not included in government statistics and planning. Problems are portrayed from a male perspective to the detriment of an understanding of the place of women. Within most geography courses, women's experiences are either rendered invisible or relegated to a position of little or no importance. What needs attention within geography is not merely where women are, but why women are where they are and the power relationships which keep them there (Fahey, 1988; Williamson-Fein, 1986). In sum the feminist geography paradigm draws key insights from the "women in development" and " gender and development" analysis which have, like radical geography challenged the dominant modernization paradigm (Boserup, 1990; Moser, 1989; Nelson, 1979). By questioning conventional development policies and programs which have marginalized women, a feminist perspective in geography sensitizes us to vital contributions of women to development which deserve to be rewarded. It addresses issues of both traditional and modern gender relationships that sustain or even reinforce traditional or patriarchal advantages accorded to men worldwide.

Clearly, Geography educators need to be aware of the diversity of paradigms in conceptualizing Geography as a field of teaching, study and research. As well, they need to be sensitive to the paradigms they may internalize as a result of the educational experience and through which they view the world directing their attention to particular geographical phenomena, processes, problems and solutions. Indeed, many of their reactions against innovations in the curriculum may be traced to an implicit belief in a paradigm which is no longer acceptable to people working in the frontier of the discipline (Biddle, 1976).

Global Education

Global education is concerned with issues and problems affecting people at local, national and international levels. Some of these problems are interconnected and can only be solved effectively at a global level. These issues range from increasing poverty between and within countries, an increased incidence of civil wars, the rise of governments created in militarism and authoritarianism, denial of human rights, the continuing arms race despite the end of the cold war, and the extensive destruction of the environment. Conflicts and violence which affect society directly and indirectly, such as acts of terrorism, high unemployment, racism, and sexual harassment are all features present in most societies, but either do not appear or receive minimal attention in the curriculum (Hicks, 1988). Before elaborating further on the vision and strategies of global education, it is important to note antecedent initiatives such as development education, human rights education, disarmament education, and peace education.

Environment education embraces plants, animals and people. It helps people to become aware of the need for human beings to live in harmony with the natural world on which they depend for survival. It helps them acquire the knowledge, values, attitudes, commitment and skills needed to protect the environment and uphold sustainability of people-environment relationships. Environment education will lead to questions of development, rights, culture, race, gender and peaceful and conflicting relationships (Greig, Pike and Selby, 1989).

Since the Universal Declaration on Human Rights in 1948, human rights education has helped to promote greater awareness of the role of civic, political, economic, social and cultural rights in upholding human societies. During the initial phase of human rights education, there was generally an emphasis on civil and political rights such as rights to life, liberty and security, freedom of thought, and no subjection to torture, slavery, and forced labour. In succeeding "generations" of human rights, new concepts of rights such as racism, sexism, the right to development, and the right against implications of environmental abuse are also included (Burnley, 1988; Eide, 1986).

The growth of the "peace", or "anti-war" movements in the post World War II era, especially in response to the Cold War threat of nuclear holocaust, has also fostered disarmament education (Haavelsrud, 1981). As proponents maintain, citizens of all societies need to participate in building a world free of militarization based on principles and strategies of active nonviolence. Although in the post Cold War era, the threat of a nuclear confrontation between the former super powers has receded somewhat, horizontal nuclear proliferation remains a serious problem. The international arms trade continues to escalate contributing to political instabilities, regional arms races, and political repression in states dominated by authoritarian elites. For disarmament educators, it is crucial to engender through formal and non-formal schooling, understanding, values, and skills for non-violent conflict resolution from the macro to micro levels of society.

The movement known as peace education in many regions is often synonymous with global education. It attempts to develop critical awareness of the existence of conflicts between people and within and between nations. It analyses the root causes of conflict and violence embedded within the perceptions, values and attitudes of individuals as well as within the social, political and economic structures of society. In contrast to disarmament education, peace education focuses on the concepts of negative and positive peace so that "peace" is not just an "absence" of war or other forms of direct physical violence. Rather, peace education encompasses problems of militarization, racism, structural violence notably rooted in economic and social injustice, environmental destruction, international respect and equity, and inner or personal peace (Pike and Selby, 1989; Sharp, 1986; Toh and Cawagas, 1987).

Global education has clearly been influenced by these various initiatives or innovations in education theory and practice. Although it has been defined by various scholars and practitioners whose perspectives and paradigms may vary in terms of emphasis, they all try to address the same issues. Their ideas and concepts can be synthesized to give a holistic understanding of global and local issues and problems. It includes environmental care issues, human rights issues, social justice, women, racism, multi-culturalism, economic and political equity, personal peace and issues of physical and structural violence. Global education would then mean helping the students to become aware of the root causes of the above issues and to develop values, attitudes, skills and the commitment necessary to address those issues so that they can shape a better world for all humanity. In contrast to the more specific concepts of disarmament education, human rights education, or environmental education, global education is clearly a more comprehensive idea. In this regard, since the 1980s various literature and curriculum material have used the terms peace education and global education interchangeably, since they both encompass similar assumptions and strategies for rethinking local and global systems and relationships. Hence, for the purpose of this study, peace education and global education are considered equivalent terms.

Aims and objectives of Global Education

The aims and objectives of global education according to Reardon (1988) are as varied as the topics and themes that are derived from its central concepts. Most scholars and practitioners (Greig, Pike & Selby, 1989; Hicks, 1988; Sharp, 1986; Toh, 1987) agree, however, that the aims should encompass the following dimensions or themes:

(1) The recognition or awareness on the part of the individual that he or she has a view of the world that may not be universally shared;

(2) Awareness of prevailing world conditions and development including emergent conditions, paradigms of development, resources and physical environment, political development, science and technology, sources and distribution of power and wealth, conflicts and cooperation, and structural violence;

(3) Cultural awareness, that is, awareness of the diversity of ideas and practices to be found in human societies around the world, and a commitment to inter-cultural respect and harmony;

(4) Understanding by students of the relationship of persons to the planet and that the well-being of a person and the planet are interdependent, as stressed in environmental education;

(5) Awareness of the problems of choice confronting individuals, nations and human beings as consciousness and knowledge of global systems expand;

(6) A concern for justice, rights and responsibilities. This means asserting one's rights and recognizing one's responsibilities toward safeguarding the rights of others and of the planet; and

(7) Students should develop the action skills necessary for constructive participation in global society inclusive of skills to analyze, evaluate and supply information.

These aims and goals are not subject specific, but rather can, and preferably could be applied across the curriculum (Hicks, 1988; Selby and Pike, 1988). Global education needs to be transformative in the sense that it empowers the learners to critically understand the world's realities in a holistic framework and also moves learners and teachers to act towards a more peaceful, just and liberating world (Toh, 1993; Reardon, 1988)). Students will develop values and skills for active participation within local, national and global systems.

Issues and Problems of Global Education

(a) Militarism

Governments of the North and South spend excessively on arms and military forces, despite the fact that millions of human beings are desperately in need of food, shelter, education and other basic needs. The beneficiaries of such budgeting priorities include the powerful states, arms merchants, and elite rulers who depend on militarized coercion to maintain unequal social and economic systems. The losers are the poor who suffer repression, fear, dislocation, injury and death under militarized environments. Global or peace education motivates citizens to become more aware of the anti-development effects of militarization and to lobby for the diversion of such funds to basic needs. Peace education also plays a crucial role in questioning values of violence or militarism in homes, schools, classrooms, and communities (Sharp, 1986; Toh and Cawagas, 1987).

In talking about the arms race and nuclear weapons, the primary aim is to provide information about nuclear weapons and the arms race in the interest of counteracting these dangerous trends and government policies. Attention is also given to the development of critical thinking, non-violent conflict resolution and the fostering of certain values and skills which will, over a long term, contribute to a more peaceful society. The control of nuclear weapons is in itself a small step in the direction of establishing a more peaceful world. Humanity will forever have to live with the burden of the knowledge of how to construct weapons of mass destruction, whether they be nuclear, chemical or biological. With the knowledge of such Doomsday technology, any future conventional conflict between nations could escalate to a holocaust if either of the two antagonists chooses to use their knowledge in developing these weapons (Carson and Brouwer, 1985).

In developing countries, nuclear war appears to most people to be remote from their daily lives. Of more immediate significance to them is the violence caused by conventional weapons and wars which kill people everyday - so too are drought, hunger, lack of clean water and other basic needs. Their economic marginality leaves them exposed both to natural disasters and to further exploitation. The costs of the arms tends to increase deficits and divert money from social programmes; it also drains away capital needed for economic development in the Third World (Timberlake, 1985; George, 1990).

The problem of violence is not just the responsibility of governments; violence and the need for peace exist at all levels in our societies. We experience violence in our families, violence toward women and children, violence in pornography, in our schools, on the streets of our cities, and the violence of terrorism, revolution and repression. The value systems promoting violence at all levels needs to be re-examined, and non-violent ways of resolving conflicts at all levels must be developed and experienced by students (Carson and Brouwer; 1985). Examples such as Jesus Christ, Desmond Tutu, Gandhi, Martin Luther King and many others can be used to show that non-violence can be effective at all levels of society.

(b) Unequal Distribution of Resources

Inequalities within nations as well as globally reflect structural violence where the poor majorities suffer a chronic lack of basic needs because of unjust and exploitative social systems. Almost one billion people worldwide are trapped in absolute poverty, while life expectancy is low (in Uganda: 47 years for men and 50 years for women) and infant mortality is high (claiming thirty-five million lives each year) (Toh and Cawagas, 1987). Despite the extensive poverty, elite groups are enjoying western-based lifestyles at the expense of the poor. North governments, transnationals, and aid agencies often support this model of unjust mal-development. Millions of people crowd the slums and squatter areas with substandard housing, and inadequate sanitary and basic services in contrast with the multi-million dollar houses and estates owned by the privileged few. There is inequality in land ownership aggravating rural poverty. The less advantaged have a lack of access to credit, production inputs, or marketing facilities. Irrigation schemes and the Green

Revolution sponsored by organizations like the World Bank (as well as the financial dependency created by the IMF.) have benefited only a minority in most South countries (Hicks, 1988; Sharp, 1986; Toh and Cawagas, 1987). Starving children in Africa and South Asia are the only messages people receive in North countries. Attention is not given to the global structures of violence which are responsible for these dramatic pictures of starvation and for many unnoticed sufferings. [illegible]ot causes are unknown to most people. As a first step to removing these structures [illegible] violence in the global system, peace education requires that emphasis be given to seeing problems as connected in a global perspective, and not as isolated situations (Selby and Pike, 1988) Development education will also motivate privileged citizens to participate in restructuring societies and North-South relationships towards equitable distribution of resources (Toh, 1988; Osler, 1994).

In education for justice the students will look at both the global and local dimensions of social and economic injustices worldwide. The students focus their attention on the inequalities which cause the deprivations suffered by others in the global community. Through this they can question the justice of North America having only 6 percent of the world's population, but using nearly half of the energy resources. All people have a right to a just share of the earth's resources, and equally important is that the rights of future generations are considered and respected. It means taking the view that humankind is a part of nature and must learn to live in harmony with it. They also question why many South countries must devote most of their productive land to export crops like coffee and cotton, while many people in those countries go hungry and have no land of their own. Meeting an ecological balance is one of the major principles of global or peace education (Carson and Brouwer, 1985; Fein, 1993).

(c) Human Rights

Through the United Nations and other agencies, civil, political, economic, social and cultural human rights have been upheld as vital in the conduct of nations and societies. Although many governments have ratified the various human rights covenants and treaties, there is a large gap between theory and practice. Many of these rights continue to be violated. There has also been much debate on the cultural specificity of human rights. While there is a need to be sensitive to cultural issues, global or peace education's premise human rights on commonalties of human dignity and respect. Furthermore, in contrast to the earlier emphasis on individual civil and political rights, later generations of human rights advocacy also stress the social, cultural, and economic dimensions of rights, including racism, sexism, the right to development, and the rights arising from the implications of environmental abuse (Greig, Pike and Selby, 1987). A Supervisory

Committee was formed to oversee the implementation of such laws (Selby; 1987). Human rights education will help to develop the political literacy of learners, thereby enabling them to analyze critically how local, national and global policy making may be upholding or violating human rights, and to take action to uphold human rights and responsibilities (Eide, 1986; Selby, 1987).

(d) Multiculturalism

In multi-ethnic societies, educational institutions at all levels can do much to foster intercultural understanding, although implementation of this goal is not easy in the highly politicized context of ethnicity and nation building. Teachers will require relevant training in intercultural relations and conflict resolution. More effort is also required to recruit teachers from deprived ethnic societies. Education for cultural solidarity will clearly develop firm anti-racist policies which will sanction against explicit ethnic discrimination, stereotyping, and institutional racism in the wider society. Schooling and education can play a constructive role in building a peaceful society based on the strength, wisdom, richness and full participation of all cultures, whether minority or majority, indigenous or migrant traditional or modern (Henfrey, 1988; Richardson, 1982; Toh, 1987; Zachariah, 1989).

Prejudice is a global judgment of people, groups of people or societies one does not fully understand. The school can help students see how prejudice has crept into our language, our symbolism, our folk proverbs and even our curriculum and textbooks. The removal of such prejudice from language and curriculum is a step towards removing prejudice in general. A more positive step, however, will require a greater familiarity and understanding of such groups. A greater emphasis on the study of other cultural or religious groups can enhance the removal of prejudice while also building an appreciation of one's own culture and religion (Carson and Brouwer, 1985). Many of today's attitudes of hatred and distrust between different peoples may be based more on ignorance and myths than on reality. Promotion of solidarity between members of different groups in society is very important.

(e) Women in Development

Women and girls constitute half of the world population, one third of the official labour force, and perform nearly two thirds of work hours but receive one tenth of world's income and less than one hundredth of world property (Hill, 1983). Women's issues constitute a new dimension of human rights which was previously unrecognized and neglected. Worldwide, women are vital reproducers of labour, producers and contributors to the national wealth from their work on the land, in factories and at home (Boserup, 1990, Momsem, 1991). Plans and projects are designed by men as if they were to be implemented by men. Women remain invisible and often receive unequal rewards in wages, nutrition, health and education. Women's visions, their strivings, sufferings, and frustrations are the very substance of the struggle for peace, a universal aspiration of multiple and varied character (Reardon, 1993). Peace from a feminist viewpoint means prevention of physical violence such as armed conflict, military occupation, reducing the role and threat of force in human affairs, and also the enjoyment of economic and social justice, equality and the entire range of human rights and fundamental freedoms. It also means a set of relationships amongst peoples and nations based on trust, cooperation and recognition of the interdependence and importance of the common good and mutual interests of all peoples (Reardon, 1993).

The term feminism here means a political perspective that demands an end to the oppression of people because of gender, and an end to the institutional and individual structures that define men as more valuable than women. Feminism rests on a belief that we can live in a world without hierarchies of control and domination, that people can exercise control over their own lives and live in harmony with others, and that women can share equality of opportunity and freedom (Reardon, 1993). From the feminine point of view, the hidden curriculum in schools works against women. It teaches obedience and loyalty to rules and to superiors, and this teaching is more pronounced for girls than for boys. The girls have to be more quiet, wait more and demand less. In co-educational classes they are taught to keep silent while the teachers and boys in the class do the talking. The hidden curriculum of the school teaches a lesson in verticality and dominance which is a core lesson in patriarchy. The hidden curriculum is often much stronger than the official one, especially since the first one is reinforced through a powerful system of grades and other sanctions. Patriarchy here means male control and domination of women; in a patriarchal system males control and even exercise violence against women to keep them in their place. Absence of violence may mean patriarchy is so strong that it has invaded all institutions and all thinking so that violence is no longer required to keep people in their place (Brock-Utne, 1989). Global and peace education, therefore, includes non-sexist education which encourages all learners to be aware of injustices experienced by women at work and at home due to male-dominated or patriarchal traditions (Brock-Utne , 1987; Reardon, 1988; Toh and Cawagas, 1987).

(f) Peace and Spirituality

Personal peace rests on the basic assumption that wars begin in the minds of people, hence peace depends upon the creation of peace-loving individuals who will have both the cognitive and affective drives for a peaceful world (Sharp, 1986). Industrialization has been accompanied by considerable personal alienation and this is manifested in various forms of addictions (for example drugs, alcoholism) or the disease of personal, domestic, and social violence (e.g. child abuse, wife battering, crimes). In industrialized North and increasingly in the modern sectors of South societies, the advanced consumerist culture and lifestyle has been accompanied by widespread alienation, psychological stresses and a breakdown of community meanings (structural violence). Education for personal peace could enable learners to create a balance between inner experience and external occurrences, to focus their thoughts, feelings and actions into alignment, and explore meaningful alternatives to the growing emptiness of a materialistic society (Selby & Pike, 1988; Toh & Cawagas, 1987), Students also need to develop a commitment to social responsibility based on values of justice, equity, human rights and people power (Sharp, 1986).

As people pursue modernization, careless exploitation of air, land and water has severely harmed the quality of human, animal and plant life. Industrial wastes have polluted rivers, nuclear accidents have destroyed nature and often caused ill health, injuries or death. Examples include the chemical pollution of the River Rhine, the Chernobyl nuclear power accident, and the reckless destruction of tropical forests for commercial agriculture. Environmental awareness should be cultivated in all citizens so that they gain respect and concern for nature (Greig, Pike and Selby, 1987; Hicks, 1988; Toh and Cawagas, 1987). An education which focuses on shared concerns and the common problems facing humanity has implications for relations inside every classroom. The students should be encouraged to be responsible for their own actions, and to make their own decisions to reflect critically on their society, as this will make them question the political and economic structures (Carson and Brouwer, 1985).

(g) The Modernization Paradigm of Development

The term modernization here means the pursuit of a particular development paradigm or pattern by industrialized countries in cooperation with their allied elites in South countries. This involves amassing material wealth through capital investment, with a high motive toward profit maximization. Industrialized nations benefit from this development through unequal trade, investments and aid. There is a strong belief in the trickle-down theory that emphasizes growth over equity and maximal exploitation of the environment. Advanced technology is deemed essential to growth, including the modernization and commercialization of agriculture with an emphasis on export-oriented cash crops at the expense of food crops. Large-scale infrastructure and private enterprise is favoured; womens' productive and reproductive roles are de-emphasized and under-rewarded. Famine and hunger are believed to be a result of drought and natural hazards. Overpopulation is believed to be the major cause of underdevelopment and can be controlled by governments. Modern formal education is deemed as helping development and growth by generating human capital. Finally, there is a belief that advanced industrialized consumer lifestyles can be universalized and the South societies can catch up with the North (George, 1976; Toh, 1987).

In summary a modernization paradigm, not only emphasizes economic development but development based on certain biases and assumptions of human progress in the economic, political, social, cultural and intellectual spheres. One comes to wonder why only the Gross National Product (GNP.) is assumed to be the predominant indicator of national growth and development. Chung (1981) actually poses the following questions on this issue; "Why not the gross national satisfaction, gross national happiness, gross national welfare, gross national love, gross national justice, etc.? (p.10) We, therefore, need social indicators of human life expressed in development plans instead of predominantly narrow economic indicators.

(h) Alternative Paradigm

In contrast, global or peace education is critical of this dominant paradigm of modernization. It advocates a transformative paradigm in that it is oriented towards values and attitudes based on compassion, justice and peace. It is concerned with the entrenched political, economic and social inequalities that perpetuate hunger and oppression, and advocates fundamental structural changes for greater social political, economic equality, more appropriate technology, recognition of women's productive roles, and a just international economic order (George, 1987; Hicks, 1988)

Global education makes people aware that local food production is essential, the Green Revolution and agribusiness widen inequalities, and there is the need for a radical land reform. It exposes the widening inequalities between the rich and poor, the rural and urban sectors and the disproportionate benefits to the elites at the expense of the masses.

(i) Pedagogical Principles

It is also vital to note that global or peace education focuses not just on "what" content is included in the curriculum, but also on how global or peace issues are taught and learned. Toh and Cawagas (1987) have referred to this as the pedagogical principles of peace education, which include holism, dialogue and conscientization. Holism takes into account the interrelatedness of the diverse issues or problems encouraged in global or peace education. There should also be constant dialogue, providing for critical analysis of the basic assumptions underlying any world view, rather than their being passively accepted as given truths.

A holistic learning approach which encourages small group activity, cooperation, negotiation and decision-making is recommended (Greig, Pike and Selby, 1987; Reardon, 1988; Selby, 1987). Use of role plays, drama, music, comprehension exercises, and other experiential activities will ensure that a range of perspectives and opinions are aired and shared and that the affective dimension of learning is facilitated. Conscientization is an intellectual confrontation between a liberating concept and oppressive structures. It is a political process too, making people aware that they need power to make critical decisions about the directions and strategies for their own development (Freire, 1972). Conscientized or politically literate citizens then begin to appreciate that existing social, political and economic structures are not immutable or infallible and develop a commitment to struggle usually with significant personal risks for justice and democracy. In the conscientization process, learners move from critical understanding to empowerment for building a just, sustainable and peaceful world (Reardon, 1988; Shor and Freire, 1987; Toh, 1987).

Classrooms and schools at all levels of schooling could become training environments for the active, courageous exercise of people's power and non-violent resistance against human rights abuse, political authoritarianism and militarism. Educational institutions need alternative governance systems if they are to be consistent with the goals of conscientization or political literacy. Administrators have to learn to practice institutional democracy vis-a-vis their staff and students, while classrooms constantly encourage democratic participation, learning and other socialization process (Toh and Cawagas, 1987).

In global education classroom, teachers and students are co-participants in this search for peace. Through dialogue, teachers learn from students while students also learn from the teacher. This perspective views peace education as a critically reflective, action-oriented activity which calls for some fundamental re-thinking of certain current educational practices that are taken for granted.

Another positive aspect of peace education is the development in children of a positive attitude toward cooperation, as our education system currently fosters competition. Competition seems such a basic drive in our society, and children compete with each other. There is room for cooperation in the classroom, however, for students working together rather than teachers helping other students. Such cooperative methods provide working models for cooperation in society and on a global scale (Carson and Brouwer, 1985).

Global education has been implemented in Sweden, Britain, U.S.A., Australia, Canada, and many northern countries (Carson, 1988; Brouwer, 1988; Reardon, 1988;

Haavelsrud, 1981: Toh, 1993; Burns, 1981). It often begins as a project where teachers in service receive training in the content and methods of global education. In the universities, such as the University of Alberta, global education is taught in undergraduate and graduate courses offered in the Faculty of Education. Teachers graduate with a knowledge of the content and methods of global education. Over the past four years, CIDA. has also encouraged the teaching profession in most provinces to develop interests and skills in global education through the Global Education Project located in the Teachers Associations or unions of a majority of Canadian provinces (AGEP., 1990-1995). In the U.S.A., various local state and federal agencies have also recognized its importance and encouraged it in the education system (Tye and Tye, 1992).

In South contexts, despite the dominant expectations of governments and elite interests to fit education to the prevailing assumptions and practices of modernization, efforts in global or peace education are also evident. These include the work of development educators, disarmament educators, environmental educators (Diaz, 1981; Desai, 1981; Maathai, 1992) and peace education programmes in the Philippines (Diaz, 1981; Toh & Cawagas, 1987).

In Uganda, initial efforts in peace education have been made especially through non-governmental organizations such as the Institute for Peace Studies and Conflict Resolution, and workshops conducted by the CIDA.-CIED. Alberta Makerere linkage Project. However, in the formal system, systematic efforts to integrate global education within the science and social science curriculum have not yet been implemented. Clearly, as this study is exploring, teacher education institutions such as the National Teachers Colleges can provide pivotal role in initiating the challenge.

Transforming Geography Education

Today, in most developing South countries geography is still focused on concepts and big ideas of spatial distribution and spatial interaction, relative location, centrality and accessibility, networks and nodal regions. This geography is decontextualized, separated from its real world, and is expressed in a language which misleads children about how society operates. Distant places are taught to the children without relating it to their familiar home experiences which are largely ignored. Economic development is emphasized at the expense of the welfare of people, and values of the affluent western society are imposed on the children in the Third World (Slater, 1992). As discussed above in global education, the modernization paradigm has a belief that poor regions can develop through big dams, resettling people, Green Revolutions, irrigation schemes, and urban industrialization, and this is emphasized in the applied geography taught in schools (Slater, 1992).

The effects of these development schemes on the lives of people is never critically analyzed in geography classrooms. Modernization leaves out topics on women's contributions to development, minority groups, war, structural violence, human rights, environmental issues, appropriate technology, culture, inequality and injustice, and political economy (Slater, 1992).

Content/Knowledge

A reconstructed Geography of the 1990s calls for a paradigm which incorporates a global perspective; the development of a humane human geography, or putting the human back into the subject. A people geography about real people and for people in the sense of contributing to the enlargement of human beings for all, especially the most deprived. This would enhance Geography's long standing objective of fostering international understanding and developing children's concepts of other nationalities. If children are to cope with the future within a rapidly changing world, then a study of contemporary global issues should be an important part of their education. Global issues to be included are human rights, environment, ecological balance, nuclear energy, war, violence, structural violence, appropriate technology , women, and justice (Hicks, 1979). As earlier reviewed, welfare and radical geographers have also developed new themes in the discipline which would be more relevant to the needs of the learner and the society as a whole. These include political economy and human geography, environment and resources, uneven development and regional change, nation, state and politics (Peet and Thrift, 1989).

Arguing for change in geography content, Fagan (1990) is of the view that attention should shift towards a geography of economic and political power, the mobility of capital, and the implications of these for governments and community groups seeking alternatives to corporate-dominated restructuring. The content should help students to understand not only the physical and biological interactions in the environment, but also appreciate the role of people as social, economic and political beings. Geographers should, in fact, have a critical knowledge of economics, political science, sociology, religion, anthropology, history, and science (Huckle, 1985; Trainer, 1990).

(a) Women and Gender in Development

As earlier discussed, students can study geography from the long-neglected perspective of women, through the inclusion of such development issues as population growth and family planning, health and nutrition, education and employment, agriculture, and by then analyzing how planning for development in these areas affects women in urban and rural environments. They can also study women's roles in political and social organizations. Geography can study questions about the division of responsibility for work within the home or the structure of power relations within households. The nature of employment for women in factories and problems of working women in relationship to both in space and through time between waged work and child care, shopping, schools and other necessary domestic work. Spatial distribution, distance and accessibility are key concepts in geography, and studies of unequal access to both publicly and privately provided resources and facilities, and of optimal distribution services, are relevant to women's studies. Women's space in urban studies should be explored in geography; they represent an enormous potential for change and this should be explored by students. If women's experiences remain invisible, Geographers can only appreciate half the problems of the world and develop only one-sided explanations for what they see (Drake, 1983; Macdowell, 1989; Monk, 1983, Monk and Williamson-Fein, 1986).

(b) Environment

Environmental issues of air and water pollution, mis-use of land, garbage disposal from industry and cities, and the use of herbicides should be integrated into the study of geography since it recognizes the vital need for community awareness and changed attitudes and behaviours toward the environment. Environmental geography can reveal to children the true cost of consumer lifestyles, especially in the industrialized northern countries, and expose them to the political function of mass consumption. This teaches them, at the same time, about the political economy and geography of other states within the world economy (Huckle, 1986). Environmental geography would create within people an awareness of the social forces acting upon them and the desire to resist political and social manipulation. Through values clarification, the students are helped to develop their own value positions which lead to purposeful and committed judgments and actions. A global perspective is the only focus that in the long run, gives environmental education its true meaning (Milne, 1974; Shortle, 1970). The environmental educator's responsibility is to challenge the traditional notion of schooling and to question accepted curriculum orientation toward the unsustainable exploitation of resources (Maher, 1986; Smith, 1978).

(c) Human Rights

Education for human rights leads to a critical awareness of the real world--the political, economic, social and cultural world in which all live and interact. Geography has the advantage of being interdisciplinary with a global vision, both spatially and thematically. There are eight possibilities for geography students to explore: (i) the right to live which deals with the geography of life expectancy and infant mortality; (ii) the right to health which deals with the geography of diet, nutrition and disease, access to safe water and medical services; (iii) the right to be human by having an appropriate standard of living and life quality which deals with the geography of income distribution, education and welfare provision as well as housing will be explored here; (iv) the right to freedom of information and expression as covered in the geography of newspaper, radio, television, telephone, mail services and freedom of speech; (v) the right to equality without discrimination on the basis of gender or racial background; (vi) the right to participate in the political processes in one's own country which deals with political geography, geopolitics and the geography of prisoners of conscience; (vii) the right to depart if one feels unsafe or oppressed which deals with the geography of refugees; and (viii) the right to work as in geography of employment and unemployment, working conditions and overseas workers. Topics covered tend to be political and controversial, and some people may consider them unsuitable for children, but they are basic to the understanding of what is happening in the world (Oliver and Boyd, 1986).

(d) Culture

Religion and social values are visible expressions in the landscape, and in spatial phenomena and patterns. Cultural landscapes do give useful indications of the way in which natural and human-made influences interact and have interacted (Pinchemel, 1982). These are reflected in land use, food taboos, settlement patterns, house types, division of labour, music and dance, agricultural practices, and so on. The use of novels in teaching geography is a resource not yet fully exploited by many geography teachers in their classrooms. The most useful components of novels include landscape representation and characterization of the realities of everyday life. They can provide information on historical geography, and give the student a real feel or spirit of a place and time. Some novels describe in detail patterns of physical and human landscape or the interdependence of various landscape elements. Novels offer many possibilities in human ecology; differences between actual and perceived environments are often highlighted, social geographic themes of people interacting with other human beings group perceptions, and group dynamics are frequently treated. Themes in economic geography often appear in descriptions of ways of making a living, transportation, communication connections, and socio-economic stratification (Lamme, 1977). Gunn (1974) argues that a non-western novel can be used in geography classes to teach topics such as poverty and the peasants in a developing society, traditional-modern conflicts, colonialism and the struggle for political independence problems, racism, and so on. Novels develop the students' sensitivities to foreign cultures, humanize distant locations and events, and capture their imagination. They can also be used to increase interest in geography by drawing upon and satisfying students' natural curiosities about the world (Chiodo, 1994).

Music is another source of geographical knowledge which has not been explored by many geography teachers. It has the potential to reveal the changing regional images, changing images of cities and villages, the attitudes of people towards urban/rural life, and can influence the image people have of places. Music can be used in the approach to topics such as the diffusion of ideas, perception of environment, migration, and urban versus rural cultural traits (Ford and Henderson, 1974). Smith (1974) argues that the exploration of feelings and emotions through music, art, drama and personal experience is an important part of learning in any area of knowledge

(e) Political Economy

Political economy education through geography will encourage students to realize that people are creators of values and the social processes in which they find expression. Human societies divide space into political and administrative areas with frontiers and limits within which laws, practices, jurisdictions and economic development differ. The conventional or constitutional techniques of achieving social change through political activity, legal reforms, civil liberties associations and the like which operate, within the law though often against many dominant trends of society should not be neglected (Curle, 1973). Further, human beings appropriate space, whether this be through private or public ownership. This results in visible patterns of land ownership which itself is a manifestation of the workings of an economic system in which certain social economic classes may exert disproportionate power and gain excessive benefits. Land use patterns, arable, pastoral, forest, industrial, residential, service, or transport also reflect the structures and policies of each socio-economic system (Pinchemel, 1982). Political education would create within people an awareness of the social forces acting upon them and a desire to resist political and social manipulation (Huckle, 1990). Geography can play a role in conscientization by fostering an objective understanding of how global structural inequalities and external interventions in the name of profit or national interests are intimately linked to international systems of class inequalities and violence (Toh, 1987).

In teaching about the world economic system, the effect of transnational corporations on the welfare of the people will be emphasized. This will be covered well in topics dealing with development schemes in Africa or Latin America. Structural violence manifested in the suffering of rural and urban poor majorities, homeless, street children, famine and hunger will be exposed in geography lessons (George, 1990; Trainer, 1985; Toh, 1988). Through teachers, geography education in secondary schools can be transformed drastically and this can be done by producing critical teachers to act as agents of social change in schools and the community.

Pedagogy

Applying principles of global or peace education pedagogy, a geography will use strategies that utilize dialogical and discovery methods with their emphasis on pupil activity and an open-ended approach which aims to provoke thought and stimulate creativity. These methods should educate children for democratic, participatory, cooperative process within the classroom (Smith, 1978). It also means the application of reflective thinking to social problems or situations that confront a specific learner or group of learners. This method builds upon the needs interests and realities of students. In the process of problem-solving they are supposed to examine their individual values as well as the values of others. Students become involved in gathering facts, attaining skills, clarifying value systems and choosing from alternative solutions. As earlier discussed, in a global or peace education paradigm, critical pedagogy facilitates a process of empowerment that facilitates personal responsibility expressed in action for transformation.

One of the methods that can be utilized to involve students in their learning is the use of private geography. Traditionally, the learner is seen as a naive subject whose history of experience and milieu are neglected but, in fact, the learner normally has personal knowledge and a conceptual framework developed through experience which could be taken into account. Geography is moral if the development of a geographic perspective of the world includes the realization that persons are responsible for themselves and their environments. The learner will make decisions about the future based on past experience (Gilbert; 1979). Such experiences create a unique view of the world for each person, a collection of environmental cognition, skills and values termed personal or private geography. Fein (1979) defines "private" geography thus:

> A private geography comprises the many personalized environmental images, values and skills that a person stores in his memory to assist him in making decisions about the location and the attributes of the phenomena experienced in the everyday spatial environment. It thus has a designative and an appraisive function. A private geography contains a cognitive representation of all the places and landscapes one has inhabited, visited, imagined or seen through the media. Spatial orientation and way-finding are served by the designative elements of the environmental images contained in a private geography. The appraisive aspects of the images have a far wider application. They control environmental beliefs, decision-making and behaviour and thus, influence what we do where in and to the environment (p. 410).

Private geography is, therefore, a general frame of reference within which the individual can act or to which he/she can attach his/her knowledge. This means it contains personal and cultural views of the world, environmental values, personal traits and even imaginative and incomplete recollections of places and landscapes. Environment can be taught effectively starting from the private geographies of students (Fein, 1979; Gilbert, 1979; Graves, 1980).

Geography in education can be assessed and evaluated using a variety of techniques. There is the formal evaluation of an exercise, homework or project, where the teacher may not only append comments and suggestions but also give a mark or grade; this is sometimes called coursework assessment. There is the informal class test during which the teacher may set a series of oral or written questions to which the students must answer in one or two words. These are the more formal term and half yearly examinations when students are systematically tested to find out what progress they have made during a particular period of time. Such internal school examinations are fairly common in Europe, Africa and Asia but less widespread in North America where more reliance is placed on various forms of coursework assessment (Graves, 1982).

There are formal external examinations set by an authority outside the school, the purpose of which is to measure the standard of knowledge and understanding of the students in a region, state or federation, for example, the General Certificate of Education in England and Wales, Uganda, Kenya, etc. and the College Entrance Examinations in the U.S.A. These are pass-fail examinations in which students obtaining certain grades are deemed to have qualified and others to have failed. They are used to give access to higher education or to certain occupations.

Course work assessment is the giving of marks or grades for a selection of the work done by a student during his/her course and their addition to give an overall grade. If all the students' learning behaviour is graded, then this tends to be called continuous assessment, an aggregate of all classwork, homework, oral tests, written tests and practical work including fieldwork which the students have obtained over a period of time (Graves, 1982). Tests and examinations may give a false picture of a student's true worth.

Feller (1994) argues that these kinds of tests are not the best for measuring achievement as they do not represent a real world situation. Students perform under restrictive conditions, and under strict time limits. Given these unrealistic conditions, a high anxiety level is engendered in the students; feelings of panic can easily prevent a student from thinking clearly. Students are also forced to memorize. While higher level skills such as conceptualizing, problem solving and reasoning may be de-emphasized. In turn this influences instructional practices and curriculum content to emphasize the same low-level goals (Feller, 1994). From a global or peace perspective, the mode of assessment or evaluation in teaching poses crucial issues and challenges. Modes that stress rote memorization lack teacher creativity and self-evaluation, and high stress on examinations will undermine dialogue and empowerment. In contrast, more peaceful paradigm of geography education would seek to encourage spaces for self-evaluation in which responsibility rests with the learner him/herself to acknowledge strengths, weakness and modifications to attain at a higher level. Learners, when evaluating themselves, need to perceive the process and products completed from the frame of reference of personal improvement. Subjectivity in results is to be expected since open-ended criteria are utilized to appraise progress. The teacher is a stimulator and initiator guiding the self-evaluation process (Edgar, 1993). Likewise in open-book types of examinations the students have the opportunity to show what they can accomplish when given the tools of the subject and time more flexible. It teaches students how to find and evaluate information, and promotes the ability to think rather than to memorize (Feller, 1994). Presently Uganda's education system has inherited a colonial legacy of methods of evaluation and assessment which to date continue to be dominated by rigid often rote-learning styles of examinations and testing.

Teacher Education

Initial teacher education courses in Britain are based on the few major areas of foundations of education, educational psychology, curriculum and general methods, and special subject methods for secondary schools (Graves, 1990). Uganda, being a former colony of Britain, is still using the same educational structure as its former colonial ruler. In addition to the above courses, the N.T.C.s of Uganda recently introduced a course called development studies. In these colleges, most of the students are working toward a diploma in science education, others in arts education, and a small number enrolling to train as upgrading teachers. Most of the students, however, come directly from secondary schools with a High School Certificate of Education.

Most teacher training colleges have a curriculum document endorsed by the Government with a statement of specific expectations. These serve to clarify what is expected to be implemented and, at the same time, build a potential capacity for calling lecturers to account. Since there is a predetermined curriculum which confines and directs their behaviour, these colleges are unlikely to produce graduates who have a critical insight into their role and function as teachers. The quality of teacher education in most South countries is described by McNamara (1989):

> It is clear that community school teacher's colleges are currently not of tertiary standing. Several factors in particular have been identified which contribute to this state of affairs. First colleges do not have the right to formulate their own budgets. Second they are frequently understaffed, both professionally and administratively. Third, resource facilities such as libraries are below tertiary standard. Fourth, because curricula are based on the achievement of a large number of behavioral objectives, there is a concentration on content at the expense of process, with the result that students tend to have a very formal perception of teaching (p. 32).

Teacher training in Uganda (as we shall see later) has not changed much from the above description. The student teacher in the above model is a passive receiver of information and is trained to be the authority in the classroom when he/she qualifies. If the subservience of student teachers is prolonged throughout their training, it is harder for them to change their role. when they actually become teachers. Teachers are most likely to perpetuate in their own teaching the authoritarian forms of relationship that they have experienced. They may not critically analyze the value of the knowledge they teach and the role of schooling in society (Carson, 1985; Kirk, 1986; Zeichner, 1983, 1990). Teacher educators, as observed by some scholars, may be similarly ill-equipped to face these issues since they are a product of the educational system that has presented knowledge in a banking form (Kirk, 1986; Swanwick, 1990). In Uganda, some of the teacher educators have been exposed to recent trends in geography education in universities where they have been trained outside Uganda and, therefore, may have different perspectives towards school geography.

In recent decades, critical social analysts have sought to question the dominant assumptions and structures of teacher education, especially in North contexts (Giroux, 1987; Zeichner, 1983). How future teachers are "trained" can lead to a reinforcement of taken-for-granted beliefs and attitudes about good and "effective" teaching and classroom, or encourage understandings and skills for emancipatory education.

In the latter paradigm teacher education can be transformed to produce critical thinkers and practitioners motivated to work for the transformation of schooling and society. In this regard, one key strategy of transformative pedagogy is reflective teaching. Through reflective teaching, teacher education promotes the ability of prospective teachers to reflect on their teaching as a means of directing their own growth and development in the teaching profession (Korthagen, 1988). Schon (1983) points out that there might be a range of issues and assumptions relevant to learning the practical knowledge of a profession that are unnoticed and neglected without a reflection-in-action perspective. It allows teachers to examine the whole context in which learning and teaching takes place, moral, ethical and political issues, as well as instrumental issues that are embedded in their everyday thinking and practice (Zeichner, 1983). Teachers, like any student, come to class with considerable experience and knowledge of existing historical, social and cultural conditions (Apple, 1975; Dewy, 1933; Giroux, 1989; Knowles, 1993). They also have knowledge of the various subjects and activities in which they have participated throughout their school life (Kirk, 1986; Calderhead, 1988). Reflection engages teachers in re-examining in an open and self-critical way these personal values, understandings and knowledge, including biases and prejudices.

In the present context of education in Uganda, there will be considerable and complex challenges in orienting the teaching profession towards a more reflective and participatory paradigm of education. Teachers in South countries like Uganda have been socialized in a culture of silence, and may not critique or advance ideas of social change during their training. Calderhead and Gates (1993) suggest in their book that the following ideas ought to be part of the objectives of teacher training programmes:

1. to enable teachers to analyze, discuss, evaluate and change their own practice, adopting an analytical approach towards teaching;
2. to foster teachers' appreciation of the social and political contexts in which they work, helping teachers to recognize that teaching is socially and politically situated and that the teachers' task involves an appreciation and analysis of that context;
3. to enable teachers to appraise the moral and ethical issues implicit in classroom practices, including the critical examination of their own beliefs about good teaching;
4. to encourage teachers to take greater responsibility for their own professional growth and to acquire some degree of professional autonomy;
5. to facilitate teachers' development of their own theories of educational practice, understanding and developing a principled basis for their own classroom work;
6. to empower teachers so that they may better influence future directions in education and take a more active role in educational decision-making (p. 2).

Teacher educators also need to be critical intellectuals and accept the above objectives before they may pass it on to their student teachers. If not, they may not develop in their students a critical spirit to question the geography curriculum they are learning and being prepared to teach in Secondary Schools of Uganda. Unless change occurs in teacher training colleges, teachers will continue teaching the same way. Schratz (1993) noted that

> Teachers who have been socialized in a traditional way through their own schooling as pupils through their training as students in higher education and through their thus acquired educational philosophy cannot turn their teaching style upside down from one day to the other. Even if somebody's practical theory of teaching is challenged in some sort or the other, it usually takes a long process of changing one's pedagogical habits which have proved to work fairly well according to one's belief system. The traditional set up of pre- or in service training does not allow for learning culture which promotes reflective teaching (p. 160).

This calls for a radical transformation in the way teachers are educated so that colleges become places where students learn and collectively struggle for the economic, political and social pre-conditions that make individual freedom and social empowerment possible. Such teachers emerge from colleges as transformative intellectuals and their work becomes a form of intellectual practice related to issues, problems, concerns and experiences of everyday life. The teachers become bearers of critical knowledge, rules and values through which they consciously articulate and problematize their relationship to each other, to students, to subject matter, and to the wider community (Giroux, 1986). Acting as a transformative intellectual means helping students to acquire a critical knowledge about basic societal structures such as the transformation of such institutions. Teacher education can create conditions of learning through which student teachers may empower themselves with regard to what they teach, why they teach, how they teach and the means to make school knowledge seem both worthwhile and interesting at the same time.

In looking at the Geography education programmes in the National Teachers Colleges, the issues discussed above on teacher education paradigms will clearly be important guidelines for research and analysis as are the paradigms of Geography and the perspectives of global education.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

The choice of a research method is guided by the problem one wants to address. In this study the purpose was to understand the Geography programs in National Teachers Colleges of Uganda. This required an in-depth understanding of the perceptions and practices of Geography education by the participants in the program. Since behavior is significantly influenced by the setting in which it occurs, it was essential to understand and respect the social world of those who participated in the program in order to understand the meanings they give to the various phenomena in the Geography program and their perception of the whole education system. For the purpose of this study the qualitative research methodology was found most appropriate. A qualitative mode of inquiry allows the researcher to gain first-hand knowledge of a situation or problem and, in my study, it provided opportunities to acquire a natural description of the social, political and cultural context of the colleges and schools where Geography education is practiced. Qualitative methods are particularly oriented towards exploration, discovery and inductive logic. They help the researcher to understand the multiple interrelationships among the dimensions that emerge from the data without making prior assumptions or specifying hypothesis (Filstead 1979; Glaser & Strauss 1970). Qualitative methods were also most appropriate for a comprehensive analysis of the variables involved in tracing views, feelings, opinions and consequently paradigms in the Geography programs in National Teachers Colleges. Four main data gathering methods were employed namely: interviews, a questionnaire, document analysis, and participant observation.

This chapter gives a detailed description of the location of the study, characteristics of the population, procedures for sampling for interviews, the procedures for interviews, focus discussions, document analysis, ethical issues raised by the research, data analysis, and limitations of the study.

The major focus of the study was to identify and try to understand the views of students, lectures, college administrators, members of the geography panel in the National Curriculum Development Center, Geography officers in the Uganda National Examinations Board, officials in the Institute of Teacher Education Kyambogo, as well as the policy makers in the Ministry of Education and Sports. In-depth interviews and focus group discussions were deemed appropriate ways of gathering data because of the opportunities for face-to-face communication. There were opportunities for the researcher and respondent to agree upon the pattern of interaction, immediate feedback, and correction. The interviewees were able to speak for themselves and define themselves in the context of the research. The focus group discussions among the students allowed me to verify information they gave in the form of corrections and additions and to have a sense of possible differences in views in terms of colleges, birth places, tribes, and social economic backgrounds.

According to Spradley (1980) a participant observer engages in activities appropriate to the social situation and observes the activities, the people and physical aspects of the social situation. Through participant observation, it was possible to understand the sentiments of interviewees in face-to-face relationships. It was possible to see lecturers, students, and other participants as persons with feelings, interests, and purposes in real life situations rather than viewing them as part of an education system which tends to be technocratic in the conventional modernization paradigm.

Several documents also provided useful data especially those that shape and structure the Geography programs in National Teachers Colleges in Uganda. These included syllabus guidelines, samples of evaluation papers in National Teachers Colleges as well as from the Uganda National Examinations Board. Documents or policies on education, in general, and teacher education in particular from the Ministry of Education and Sports were also scrutinized.

Information was also gathered from the two seminars organized for students and lecturers in my research sample. Through participation in the seminars, the interviewees were able to reveal their views and feelings toward global education and possibilities of integrating it in Geography education.

Samples

The study concentrated on three groups of people:

(I) The Geography curriculum designers, the examiners of Geography in secondary schools, and the lecturers in NTC. From these Geography educators, I was able to find out their preferred paradigmatic orientations, as well as the paradigms used in the selection of content and methods of teaching geography. The data also helped me to pose issues and questions about the possibilities of fostering global issues and problems in the geography education curriculum in the colleges, as well as the pedagogies required to implement a global education perspective. The views of lecturers, Geography specialists in the inspectorate, the National Curriculum Development Centre, and examiners in the Uganda

Examinations Board all helped me to find out why Geography content and teaching methodology in colleges and schools is what it is today.

(2) The policy makers: The Commisioners of education helped me to understand policy regarding teacher training colleges and the education system as a whole in terms of funding and the current educational policies.

(3) The student teachers in National Teachers Colleges: They provided information on their perceptions of the paradigms embodied in their Geography education in the colleges, as well as their experiences of the subject in pre-college schooling. The student teachers' orientations to the possible transformation of geography education towards a global and reflective paradigm was also explored and illuminated. Although the primary data collection method involving the student teachers was focus group interviewing and participant observation during their practicums in schools, a descriptive questionnaire (Appendix 4) was also answered This questionnaire enabled me to gain an exploratory understanding of the paradigmatic orientations of the student teachers in relation to key issues and problems in global education. Such exploratory data were then used to formulate more concrete questions for the focus group interviews to gain access to the experiences and views of student teachers in order to understand their attitudes towards knowledge of the Geography curriculum in their college as well as in the secondary schools. Through exploring some aspects of the career histories of lecturers and student teachers, I was helped to understand the relevance of this curriculum to student needs and the needs of the people of Uganda. Interpreting the past can enable teachers to make changes for the future (Knowles, 1993; Norquay, 1990).

Context of National Teachers Colleges in the Study

Two National Teachers' Colleges were selected for the study: Kaliro National Teachers' College which is located in South Eastern Uganda (about one hundred and thirty kilometers from Kampala) and National Teachers' College Kakoba in Western Uganda (two hundred kilometers from Kampala). The primary difference between these colleges is geographical and not academic since they use the same curriculum and are examined by the same institution which awards a diploma in education. There are two National Teachers' Colleges in northern Uganda which I could have used, but security reasons prevented me from conducting my research there. There is presently continuing armed conflict involving dissident groups in the northern region of the country which differs from the south in terms of the physical, climatic and economic conditions. The western part of Uganda is occupied by pastoral as well as agricultural people and differs somewhat from the east which is occupied mainly by agricultural people.

National Teachers College Kaliro

National Teachers' College Kaliro is located in south-eastern Uganda at Natwana, thirty-two kilometers north of Iganga Town, in a typical rural environment. Situated between the old Busoga Railway Line and Buwenge Road, about two kilometers from Kaliro Town, Bulamogi County, Kamuli District, it is linked to Iganga Town by a tarmac road. The College land was donated by the Balangira (Princes of the former ruling family) of Bulamogi under the leadership of Owekitibwa Ezekyeri Tenywa Wako, M.B.E., a former President of Busoga Lukiko and Kyabazinga of Busoga from 1919 to 1949. The College, established in 1973 to train teachers, was set up jointly by the Government of Uganda and the United States Agency for International Development (USAID.). It had originally been designated as one of the four regional Grade Two Teachers' Colleges (Kabale, Unyama, Mubende), each with a capacity of one thousand students.

The political events of the 1970s in Uganda did not allow the building of the College to be completed as it had originally been planned. USAID., which had undertaken to build the college, was unable to continue with its financial assistance in 1974, leaving the rest of the construction program on the shoulders of the Ugandan government. To date, the College has three Halls of Residence for male students, one Hall for female students, twenty three houses for teaching staff, eleven lecture rooms, a library complex, six offices for Heads of Department (now used as the college administration offices), a dining hall and kitchen, and one complex for the Primary Demonstration School (College Magazine, 1995).

The College has gone through four major phases. Between 1973 and 1981 it was a Grade Two Teachers' College, admitting Primary Seven leavers for a four-year course. In 1982, it was upgraded to Grade Three Teachers' College enrolling "O" level certificate holders. In 1985, it was transformed into a Grade Five Teachers' College making it one of the ten National Teachers' Colleges in the country, admitting A-level certificate holders for a two-year diploma in Education (Secondary) Programme (DES). On graduating, the graduates are expected to teach up to the "O" level. In 1990, a two-year Inservice Diploma in Education (Primary) DEP was started.

The college enrollment is 2,461 students per year, starting in 1994/95. This enrollment includes both the Diploma in Education (Secondary) and Diploma in Education (Primary). The Primary Diploma was first introduced in 1990 as the first inservice program in the whole of Uganda which enabled Grade Eleven teachers to specialize in primary education. Since then, the program has not only become increasingly popular at Kaliro, but has also been introduced in the other nine National Teachers' Colleges in the country (Nkozi, Mubende, Kabale, Kakoba, Masindi, Muni, Unyama, Nagongera and Ngetta) (NTC Kaliro Magazine, 1995).

The people in the area are agriculturists depending on millet, maize, cassava, beans, and peanuts as their food crops, while cotton, rice (and to a lesser extent) coffee have remained their main cash crop. Although this is typically a Savannah type of climate and vegetation, this area has one of the most valuable hardwood trees ('Mvule') growing naturally throughout the area. Exploitation of timber from this tree and the accompanying production of charcoal is another lucrative economic activity. Despite the activities enumerated above, the area is still poor with few people going to school, little access to basic amenities such as clean water, medical services, education, good infrastructure, market for their crops and formal employment with a guaranteed income.

National Teachers College Kakoba

The National Teachers' College Kakoba is located four miles south of Mbarara Town in western Uganda. The NTC Kakoba grew from the former Bishop Stuart College which was started in Mbarara District at Ruharo in 1952. The College trained and offered Grade Two Certificate courses to Primary Teachers. It was named Bishop Stuart after the Anglican Bishop of the then church of Uganda, Rwanda, Burundi and Boga-Zaire. In 1955, Bishop Stuart College was granted 121 acres of land at Kakoba by the Hon. Mugonya, the then Prime Minister of Ankole Kingdom and who later became the Minister of Lands and Mineral Development in the Protectorate Government. The College was transferred to Kakoba and registered under the Native Anglican Church.

In 1979 the College was badly damaged and looted during the war that ousted Amin from power, and it served as a temporary barracks for some time. In 1982 it was transformed into a Grade Five college offering a two year course leading to an award of Diploma in Education of Makerere University. In 1985 the second liberation war that ousted Obote, Okello and his junta once again left the college devastated, everything was looted. In 1990 the college started an inservice training course to upgrade Grade Two Teachers. At present, NTC. Kakoba has five departments, namely: Agriculture, Arts, Science, Professional Studies and Primary Education with a total enrollment of about 800 students.

NTC Kakoba is located within the Mbarara District which is a typical pastoral area occupied by the Nkore tribe. The Pastoral Hima are mainly concentrated in Mbarara District which is drier, with savanna grassland scattered with thorny bushes (Appendix 3). The wetter area of Bushenyi is the homeland of bananas, milk and honey. The district is well known for the cross breed of exotic cattle which produces more milk compared to the local famous long-horned cattle of Ankole. Similar to the Kamuli district in which NTC Kaliro is located, the community around NTC Kakoba is poor in terms of access to basic needs, infrastructure, and social services.

Data Collection

For this research I used the student questionnaire, focus-group discussions with the students, in-depth interviews with lectures/tutors, UNEB., NCDC. and Ministry of Education and Sports officers, and a content analysis of course outlines, educational reports and the government White Paper. I relied on a research assistant to assist me in technical and logistic aspects of the field research, and audio cassette and a camera to record data.

The Questionnaire

Questionnaires are normally employed when large numbers of people are used as informants and are also used to survey the distribution of a set of characteristics or a set of attitudes or beliefs. There is an assumption that characteristics and beliefs can be accurately described through self report (Marshall and Rossman, 1989).

In this case, I intended to use all final year students from both colleges for the purpose of clarifying their paradigmatic orientations and understanding. A questionnaire was administered to identify the pre-service teachers' beliefs, views and opinions on a range of global issues. This helped me to determine whether there is/are specific paradigm(s) emphasized in their teacher education programmes. These students are admitted to the colleges after completing the advanced level secondary education to train as Secondary School Teachers, Grade Five. There are also Grade Three Teachers who join and upgrade to Grade Five level, (these are first trained as Primary Teachers after completing O-level education.

All final year geography student teachers were originally designated to participate in the completion of questionnaires. I arrived in Uganda in the first week of June 1995. In the second week I visited National Teachers' College Kaliro when the students were undertaking their final year examinations. A random sample of twenty students was used to test the questionnaire and after analyzing the results, I issued it to my full sample two days later. A total of one hundred and twenty students answered the questionnaire, eighty-five from Kaliro and thirty-five from Kakoba. By the time I visited Kakoba the students were already out in schools doing their practicum and hence it was difficult to reach all the geography students. I managed to trace only thirty-five, who were in schools in the Mbarara and Bushenyi Districts.

Information obtained from these questionnaires was used as a foundation for the focus group discussions. The questionnaire was constructed in such a way that the respondents would indicate whether they "agree, strongly agree, disagree, or strongly disagree" with the statement (Appendix 4).

The questionnaire was constructed while I was still at the University of Alberta. The instrument was given to a sample of Uganda scholars and other African students who gave me their opinions on the face validity of the questions posed. This pre-testing ensured that the questions could be interpreted by the student teachers in a consistent way. Here I was looking at the language used as well as putting the questions in a Ugandan milieu. Some of the questions were changed to simplify the language. In Uganda, the revised questionnaire was initially distributed to a small number (twenty) of pre-service teachers to establish its applicability in the real field. The results of this field test confirmed the suitability of the questionnaire which was then used for the larger sample of students. The questionnaire was constructed in the English language as this is the medium of instruction in Ugandan schools, colleges and universities.

The Focus-Group Discussions

Focus-group discussions normally consist of seven to ten participants. This method is used to obtain the different views, feelings and opinions of the various people invited for the discussion. People usually share some commonalties although they may have diverse backgrounds, according to gender, age, culture and educational background (Krueger; 1988). I was posing the questions, paraphrasing where necessary, listening and observing the non-verbal responses, as well as writing down while the students shared their experiences, commented and elaborated on the topic under discussion with me. The research assistant helped in the recording of answers using a notebook and changing the tapes when required.

Thirty-four students (instead of forty) participated in the focus group discussions because it was difficult to bring them together once they were scattered in the various schools doing practicum. This meant transporting them to a central place and feeding them whenever there was a group discussion. On two occasions I had to pay for the rooms I used for these interviews. Kaliro students were located in three main centers: (i) Kaliro-Iganga schools where I used Iganga High School as a central place for the interviews - there were six students; (ii) Jinja schools which included those within the municipality as well as Njeru, Lubanyi, Kakira and Busiro. These formed two discussion groups of seven people each.

The criteria I used to select the students were accessibility to the schools they were teaching in and inclusion of as many female students as possible. There were eight female students out of twenty in the three groups of Kaliro. Accessing these students in Iganga and Jinja Districts was not very difficult because I know the location of all the schools where they were teaching. I am also personally acquainted with the headteachers in most of the schools hence it was easy for me to join the school community and observe the lessons, as well as obtain permission from the school authorities to allow the students to attend the discussions.

The situation in Kakoba was rather different from Kaliro in that the students were spread over a wide area and mainly in rural areas with which I was not familiar. I did not initially know the location of the college, nor the Director or members of staff. I first introduced myself by way of a letter from the University of Alberta to the Director of the College (Appendix 1). After allowing me to conduct the research, the Director introduced me to the Geography Head of Department whom I discovered is a brother of mine in the name of our Lord Jesus Christ. I relied on the goodwill of this Head of Department, to take me to all schools in the Mbarara and Bushenyi Districts where student teachers were on school practice. Some of the questionnaires were administered by the college lecturers who were visiting various schools to supervise the students, and were returned to the college over the weekend. Since the students were scattered over long distances, it was difficult to access all the twenty students in my original sample.

In Mbarara District I was able to involve seven students: three from within the municipality and four from various distances ranging from ten to fifteen kilometers. Some Head teachers were reluctant to release these teachers before closing hours. In Bushenyi District the situation was worse in that the students were too far apart. However, a Geography lecturer managed to hire a room in a Bushenyi Technical Institute for the group interviews. I then was able to get three female and four male student teachers in the Bushenyi District as research participants, making a total of fourteen from National Teachers' College Kakoba (Appendix 3).

The number of female student teachers is small, thirteen out of thirty-four, because the proportion of female students to male students in higher institutions of learning is generally low (1:5 in the two colleges I used in study). The student teachers participated enthusiastically in the research, giving me considerable data about their experience in their secondary education, the college, the schools where they were teaching, and the community in which they have grown up. This was their second teaching practice, so they were able to compare the two schools where they taught as well as evaluating themselves at the end.

All student teachers interviewed had completed the 'Ordinary Level' secondary education and, therefore, had done geography of that level and were being prepared to teach that same syllabus. They had also undertaken their first teaching practice whereby they had an opportunity to try out some teaching methods. One difference is their age: three of the student teachers were clergymen who graduated from Catholic and Anglican theological colleges and were doing a diploma in Education. Other differences were gender and cultural/regional background. The discussions focused on their educational background from Senior One to the teacher training colleges. The issues in the questionnaire formed a basis for the discussion since they were picked from some topics in the 'O and A' level geography syllabuses. In addition, we discussed geography as a discipline and its contribution to education and the development of the country as a whole. In doing this they revealed their feelings, experiences, and perception of Geography education in both the secondary schools and the teacher training colleges.

Interviews

Interviews in qualitative research can be described as a conversation with the purpose of obtaining valid and reliable information. During the course of the conversation and interaction, immediate follow-up, clarification and probing takes place enabling the interviewee to reveal his/her viewpoint (Marshall and Rossman, 1989). Influential elites in the Ministry of Education and Sports headquarters, the National Curriculum Development Centre, the Uganda National Examinations Board and in the two National Teachers' Colleges were interviewed. These people are well informed about educational policy and the overall legal and financial structure of the education system and/or the theory and practice of geography teacher education.

(i) Members of Geography Panels. I was able to locate all members of the geography panel I planned to interview. Four were sited within Kampala and one was found in Jinja. Because the National Curriculum Development Centre panels are not functioning properly it was difficult to tell who was the most important person on the panel. I interviewed those people given to me by the official I found in the office. Most of them reside within Kampala, except for one in Jinja and one in Namasagali who was not accessible to me because of the remoteness of the school where he teaches.

(ii) Policy Makers. The Commissioner and Assistant Commissioners provided information on education reports and policy, and the structure and legal mechanisms used in implementing a new education program. I obtained a general picture of the financial situation of the Ministry and how this affects the revision and implementation of the Geography education curriculum in the country. I was able to obtain their perceptions of geography in the curriculum and its contribution to education and development of the country. The officers in the National Curriculum Development Centre and the Uganda National Examinations Board revealed their attitudes and awareness of global education and some gave some suggestions how it could be incorporated into geography and the curriculum as a whole in schools.

(iii) Geography Lecturers in National Teachers Colleges. I planned to include all the geography lecturers, thinking there were four in each college. I found out that although the establishment had four lecturers, only two were available in each college. For the lecturers, the focus of the interviews was on global issues and problems and their relevance to Geography, methods of teaching, students' school practices and other issues related to the training of teachers. The conversations reflected on the content and methods of teaching geography and training teachers. We identified various global or peace education issues which may not be addressed in geography education, for example, ecology, community, structural violence, gender, racism, etc. Furthermore, the interviews revealed paradigm orientation(s) of lecturers which are used in teaching and setting examinations for their students. Through their career narratives I also found out about their understanding of geographical knowledge and other global issues gained when they themselves were educated and trained as Geographers.

Through their experience, teacher educators develop an educational perspective which they tend to pass on to their students. At the same time, each educational program is related to the educational paradigm held by a particular institution (Zeichner, 1983). In the case of Uganda, all National Teachers' Colleges operate in a centralized system under the Institute of Teacher Education, Kyambogo which serves to regulate the quality of the academic programmes.

(iv) The Uganda National Examinations Board. This Board is responsible for setting examinations for both the primary and post-primary institutions which include secondary schools and technical institutions. Each subject has a group of specialists from schools, technical institutions and higher institutions of learning who set and moderate examinations for the Board. I planned to interview those people who actually design the questions first, and then those who set the questions for each paper every year. Teachers and tutors in schools and post-secondary colleges, as well as lecturers in tertiary institutions, are trained by the Board to write questions, moderate, and mark them. The public employees of the Board facilitate the process of selecting the teachers for training, compiling the questions set, and coordinating with higher institutions of learning for moderating the questions. The questions determine, in a way, what is taught out of the curriculum in the Geography classrooms. The fact that this is an external examination used for selection and elimination of students for higher levels of learning calls for responsibility and accountability on the part of teachers, school administrators and the Examinations Board.

There have been incidents of leakages of questions set in examinations to the public for a number of years, forcing the Examination Board to tighten up security. For that reason, the Secretary in charge of issuing permission to researchers did not allow me to interview the people who write the questions. I was allowed to talk to public officers employed by the Board, but not the teachers or moderators in the higher institutions of learning (Appendix 1). I was able to interview two officers: one a research officer and the other in charge of humanities.

(v) Geography Inspectorate. The Geography specialist in the Ministry of Education and Sports Inspectorate is in charge of coordinating the teaching of the subject in schools and teacher training colleges. The officer liaises with the National Curriculum Development Centre, Uganda Examinations Board and schools to ensure that the content and methods of teaching are properly implemented. The officer is supposed to organize refresher courses for teachers to catch up with new trends in terms of content, methods and examinations. As there is no Geography Inspector of schools at present, I was directed to a caretaker who is in fact in charge of Humanities, which includes religious studies, history, geography, political education and related areas.

(vi) The Ministry of Education and Sports. By the time I arrived in Uganda in June, the Minister of Education and Sports and his Deputy were busy in the constitutional-making debates as well as cabinet meetings. These debates continued until the middle of October, after which the Minister went to attend a UNESCO meeting, making it impossible for me to interview him. However, I was able to interview the Commissioner of Education and Sports and three Assistant Commissioners (one in charge of teacher training colleges at both Basic and National Teachers' Colleges, an Inspectorate in charge of teacher training colleges finance and posting, and one in the Teaching Service Commission). I had expected to interview only two Commissioners but I found out after commencing the study that there were two more concerned with teacher education.

Participant Observation

I was able to observe six lessons being presented by student teachers in the schools where they did their school practice. I obtained their timetables either directly from them or through their tutors which gave me the opportunity to look at their schemes of work and lesson plans (Appendix 8). I was able to observe the prevailing conditions of both the rural and urban secondary schools in terms of the quality of pupils and teaching materials available for use in classrooms (Appendix 3). This helped me to reflect critically on the conditions under which students put the "theory" of Geography education into practice.

Documents

Various educational reports and other educational documents in the Ministry of Education and Sports and the National Teachers Colleges provided me with background information for interviews. I was interested in discovering trends in the educational philosophy and the associated aims and policies of education in Uganda. These reports contained the prevailing political ideology at a particular time that directly affected the educational programmes in schools as well as their financing. Getting to know the writers through reading (literature) of these reports helped me to find out their paradigms, which may affect their definition of education and development and, therefore, the kind of educational programmes they recommended. I was able to get access to the Castle and Kajubi Reports of 1963 and 1990 respectively and the Government White Paper of 1990.

The curriculum documents and course outlines (1986-1995) in the colleges revealed topics taught in both Secondary and National Teachers' Colleges. It was also possible to identify from these documents which global issues and problems could be integrated in the curriculum to make Geography education more relevant to the needs of students and Ugandans as a whole. The course outlines helped reveal the adequacy or inadequacy of Geography courses offered to student teachers in making them confident and efficient in Geography teaching.

Examinations normally determine what the teachers will teach in class. In Uganda, the external examinations are set by the National Examinations Board for both Primary and post-Primary institutions. I analyzed the Ordinary level geography examination papers over a period of ten years from 1986 to 1995 which partly helped me determine the paradigm used by examiners through their choice of what to examine. The papers helped identify which topics were left out and, therefore, not likely to be taught in schools. The questions revealed what the examiner was looking for in those topics which happened to appear in examinations. The same criteria and method was used to analyze the examination papers set for the students in National Teachers' Colleges by the Institute of Teachers' Education Kyambogo. I was able to obtain papers for ten years from 1985 to 1995.

The textbooks used in Ugandan schools are published outside the country. In the case of Geography, some were written with the geography examination syllabus twenty years ago and a few were written five to ten years ago. A few materials have been written by teachers in the form of model answers by teachers in secondary schools and lecturers at the university. In the National Teachers' Colleges there are additional reference textbooks for lecturers. Analysis of the textbooks helped me to better understand why the teachers and students may have the kind of perceptions they have of Geography.

The Global Education Seminars

A final methodological component of the study involved conducting a two day global and peace education seminar for college lecturers and student teachers who participated in the research. The first seminar was conducted at NTC. Kakoba from the 7th to 8th of September 1995, with ten participants and two lecturers in attendance. The second seminar was conducted between the 21st and 22nd of September 1995 with fourteen students and two lecturers attending. Through the seminar it was possible to reflect on issues discussed in the focus-groups, which helped with feedback from both student teachers and college lecturers. It provided me the opportunity to demonstrate some ideas and strategies for integrating geography education with global and peace perspectives. The seminar was also a way of sensitizing teacher educators and future teachers to the possibilities for transforming geography education.

Recording Procedure

With the permission of informants, all data collected were audio-taped except for situations where it was not possible due to noise or lack of power. All tapes were dated and labeled to avoid confusion during transcribing. The focus-group discussions were either conducted in empty classrooms, staff rooms or under a tree. This taped information proved very useful especially when I or the Research Assistant felt we may have missed valuable information in our written notes.

Reliability and Validity

This refers to the consistency of qualitative findings. A study is reliable if a second researcher should be able to follow the primary investigators research path and arrive at similar conclusions (or at least agree with the interpretations of data). Glaser and Strauss (1977) stress the importance of giving an extensive abstract of the theoretical framework at the beginning of the study as well as some segments throughout the report as one way of establishing validity of the study. In this study the global education theoretical framework is used and presented throughout the seven chapters. Interviews and questionnaires were drawn from insights of global educators about relevance and importance of issues such as traditional knowledge, environmental care, human rights, economic and political inequalities, women, and many others.

Another way of achieving and ensuring validity of the results is examining the credibility of the informants (Becker, 1970). In this case the informants were carefully selected from the participants in the program. A random sample was chosen from the student teachers and the four lecturers, the directors and the officials from the Ministry of Education and Sports. According to Patton (1990) open ended interviews help to reveal the informer's depth of emotions, the ways they have organized their world, their thoughts about what is happening, their experiences and their basic perceptions. These face-to-face interviews helped me to get the face validity of my informants through their own voices. Reliability and validity was also achieved by describing the socio-economic and political context of the colleges and schools where the study took place. This process helps the reader to see and hear the voices of participants in relation to the environmental contexts. In terms of data analysis, the detailed use of narratives and responses of participants helped me to strengthen the validity of the study (Glaser and Strauss, 1977).

For the interviews, the interview guide was reviewed by the Supervisory Committee. The questionnaire was also reviewed by colleagues from Uganda and other African countries while still at the University of Alberta, as well as by my supervisor. It was pre-tested on a sample of students, and analyzed before it was finally used. Effective interview techniques such as empathetic listening, appropriate non-verbal behavior and clarifying questions were utilized. Serious consideration was also given to avoid imposing my own thoughts on the interviewee. This was extremely essential in order to avoid turning the participants into research objects by ignoring their interests in this study (Filstead, 1979).

External validity indicates the representativeness and generalizability of the findings and this may be increased by the use of triangulation. Triangulation is achieved by combining information from varied data sources, investigators, theoretical perspectives or methods. Triangulation provides opportunities to the researcher to achieve higher level of confidence in the results. It uncovers the deviant dimension of the research phenomena and enriches explanation of the research results (Filstead, 1979). The focus on multiple perspectives and using multiple methods to arrive at a conclusion via different data sources enhances validity of the program under study. In this study, a measure of triangulation was used and attained in a case such as the duration of practicum where the students first told the inadequacies they experienced. I obtained the same information from two other sources, the Geography lecturers and the directors and the commissioners of Education. The case of lack of adequate teaching materials is another example where I obtained data from multiple sources including the education reports to ascertain the credibility of information.

Bracketing

In qualitative research, the researcher is the main instrument. An awareness is needed of the influence of personal experiences, beliefs, values and biases on the research process. Bracketing is the analysis of the researcher's personal preconceptions and experiences in relation to the research topic prior to and during data collection and analysis (Guba and Lincoln, 1981)..

Although I have been training geography teachers in the University and have been a secondary school teacher for more than ten years, I found that the programmes of geography in NTCs are quite different. My ignorance of their programmes allowed my informants to be the authority in this area; they did not feel threatened that their interpretation of their experience would be doubted or questioned by me.

In Uganda, students who fail to go to courses of their first choice normally join the teaching profession as a last resort. Therefore, I had expected to see reluctant teachers trying to get a certificate and then switch to other jobs. The students I interacted with, however, were enthusiastic about their future teaching careers and were highly motivated. They were very open in revealing their experiences and aspirations for teaching and future further studies.

I also went into these colleges with the belief that they are well equipped with resource materials and staffed with highly motivated lecturers. I had that bias because in most research literature available in Uganda, graduates from N.T.C.s are reported to be better teachers than the graduate teachers from the university. However I found the [illegible] of what I expected, and the lecturers and administrators spoke candidly about the [illegible] conditions under which they work.

Delimitation

The student teachers who participated in the study were all volunteers. Twenty students were randomly selected from the volunteers. Considerable effort was taken to include female students but I could not obtain an equal number of female and male students. The situation was made more difficult by the fact that they were undertaking their teaching practice and some were very far away in remote schools. Since volunteers were used, results may not be representative of the general population of Geography education students in the colleges. The advantage was that since these students had just left college, they could vividly recall their educational experiences.

There were only four lecturers (two from each college), so there was no choice in selecting them. One of them commented "Sometimes one has to be careful, otherwise the Head may engineer your transfer." To me this indicated there was some kind of constraints to what some could reveal. However since I identified with them as a fellow teacher working under similar conditions of service, I feel that they were very open in their views and discussions. Some also had strong beliefs that through this report their grievances would be considered by the authority in charge, although I did not make any guarantees in that regard when I introduced the study to them.

In UNEB. the Secretary allowed me to interview only the public officers. The teachers who actually set the questions were not accessible to me as I had planned/hoped. These are unexpected events which researchers normally face in the field.

As regards the NCDC., transport facilities also limited me to members within easy reach. Members up country may have had other experiences and views which were not revealed by those interviewed.

Ethical Considerations

Ethical considerations for this study included informed consent, voluntary participation and confidentiality. A proposal for this study which highlighted these ethical considerations was submitted to and approved by the Ethics Review Committee of the Department of Educational Policy Studies. I also oriented my research to the basi[illegible]rch ethics guidelines for the study.

The participants were informed of the general purpose of the study and their role in it. Participants were also told that the interviews would be tape recorded and transcribed, an[illegible]rticipation was voluntary they were free to withdraw from the study at [illegible] informed that they had the right to refuse to answer any question and [illegible]st that the tape recorder be turned off and the interview terminated any time. Pa[illegible] were also told that they would be sent a report of t[illegible] completion of th[illegible]

With re[illegible]consent in Uganda , written cons[illegible] forms a[illegible]ven to research participants by researchers. There is oft[illegible]y and suspicion that signing of a form prior to volunteering information implies a legal responsibility should information of a confidential nature be inadvertently leaked during or after a study. I therefore did not require written consent to be provided by my survey and interview participants.

The Geography student teachers (approximately 100) of NTC Kaliro were gathered in a hall for an orientation to my research project. I informed them of the goals and purposes of the study. After a number of questions and proper understanding of what is involved, the student teachers were invited to participate in the study. Those students who chose not to participate were then requested to leave the Hall. The 85 students who remained behind then voluntarily agreed to fill in the questionnaire. It was out of these 85 students that the sample of twenty students were selected to participate in the main part of the study.

In the case of NTC Kakoba, the student teachers were already out in the field doing school practice. More than 100 copies of the questionnaire were sent to various schools and only 35 volunteered to fill in the questionnaire. Fourteen student teachers further volunteered to participate in the focus group discussions after I personally visited the schools where they were undertaking their practicum.

Confidentiality and anonymity were maintained throughout the study. In the presentation of data the students voices were recorded by group. There were five groups which were interviewed on different dates. In the text, every student quote was followed by a group number and date, for example, (S.T (2) 22-6-1995). The lecturer's quotes were recorded as (L,(1) 22-8-1995); members of geography panel as (G.P (2) 26-8-1995); UNEB. Officers as (U.O (1) 29-8-1995); Acting Geography Inspectors as (I.G.18-8-1995); Assistant Commissioners of Education as (A.C (1) 3-10-1995); and the Commissioner's code as (C.E 11-10-1995). This concealed to a great extent the identity of the participants in the study. Information which could identify the participant was omitted from the final report, and tapes were erased at the conclusion of the study.

[illegible]ta Presentation

Data consist of the written transcripts, field notes and documents and are presented in the following three chapters. The main purpose of this research was to carry out a critical analysis of the current Geography teacher training programmes in the National Teachers' Colleges, and to explore possibilities of transforming them through the theory and practice of global education. Accordingly, this study was based on the experiences, views and insights of teacher educators, student teachers, and policy makers, as well as educational doc[illegible]der to answer research questions described in chapter one.

CHAPTER FOUR

GEOGRAPHY CONTENT IN THE NATIONAL TEACHERS COLLEGE PROGRAMS

Introduction

This chapter presents data on the paradigmatic orientation of the Geography education program in the two National Teachers Colleges examined, with a focus on the area of content. Pedagogical issues embodied in the curriculum will however be examined in Chapter Six. This chapter begins by narrating and analyzing the participants' definition of Geography as a discipline, its contribution to education in Ugandan schools and their conceptions of development. This is then followed by an examination of the goals, objectives and knowledge required by the NTC Geography program found in curriculum documents, textbooks and examination papers. In the narratives cited, the type of respondents are identified by acronyms as follows: student teachers (ST); college lecturers (L); college directors (D); Geography panel members (GP); UNED officers (UO); Assistant Commissioner (AC) and Commissioner of Education (CE).

Defining Geography

Learning geography implies the learning of certain concepts, principles, theories and skills which are contained within the subject. I first found out how the respondents define and perceive geography as a discipline in education. It was also important to find out what they consider to be the scope of geography, its contribution to education and the development of learners and citizens of the country. Majority of the participants defined geography as a summary statement, as illustrated by the following answers:

> *It is the scientific study of man and his environment and how he has used it to satisfy his needs* (ST (4), 4-7-1995).
>
> *It is an explanatory description of the earth's surface which occurs as a result of man's activities and any other physical processes taking place over time. Whatever happens on the earth's surface, man is at the core. It involves the study of map work and photographic interpretation, physical and human aspects, buildings and roads, settlements and bridges. Man takes up seventy percent of the whole discipline* (UO (2), 23-10-1995).

> *It is the study of man and his environment in relation to the interactions; man-to-man interactions and the interaction between man and the environment for survival. Man is the central figure in this interaction over time and space, his past, present and future* (L (4), 9-8-1995).

> *It is the study of man and his environment, the way he uses it, maintains, destroys or integrates with it. It is the movement of people, the use of natural resources, the study of climate, atmosphere, and physical changes in the land (geomorphological changes). It reaches out into history, biology, geology and many other aspects. It is an integrating subject which helps with understanding other subjects whether arts or sciences* (GP (2), 3-8-1995).

The participants define geography as a study of human beings and their environment in terms of how they utilize, exploit and manipulate the earth's resources for their well-being and survival. Traditionally, geography has been defined in terms of observations about "man-land" relationships or spatial patterns of phenomena which have been produced and organized by scholars of Geography and which are to be passed on to the children as part of their general education; hence the use of phrases like 'scientific study' which imply empirical knowledge. This tends to be quantitative in the form of observed empirical knowledge, packaged to be delivered to the students. This kind of knowledge leaves out other variables of life not easily observed and quantified such as the values, attitudes and feelings of people.

In the response of participants, the value of exploitation of resources for the benefit of human beings is emphasized while the value of protection and preservation is not reflected. This kind of definition leads to a detailed study of the physical environment and how it has influenced human activities, and how human beings affect the environment through farming, mining and settlement. For example, one of the above definitions includes the study of bridges, roads and how children should be equipped with skills for reading and interpreting maps and photographs. The teacher, therefore, is trained with the purpose of equipping him /her with methods which will enable him/her to transmit knowledge and skills to students who will later reproduce it in examinations by describing and explaining. Since these skills are not related to the everyday life of the child, they may be easily forgotten.

One participant is of the view that geography synthesizes knowledge from other subject areas. Integration is actually advocated as a better approach to Geography education. However, in reality the physical and human is taught separately by Geography teachers. As one Director maintained,

> *Geography is the study of man and his environment. The potentials of the environment should be understood so that the country can benefit. We should look at how man relates to the environment, grass, soils, industry, and animals, and how man can survive as a farmer, industrial worker, politician, herdsman and man in general. It should focus on the attitudes of people, their role in enhancing development, the various areas where development would occur, and the effects resulting from this* (D (1), 18-10-1995).

The second Director said:

> *An academic subject providing knowledge over a variety of topics related to everyday life:- physical features, erosion, climate, environmental protection and human activities* (D (2), 25-10-1995).

Although they mention people and how geography relates to the everyday lives of people, we shall see later that issues on culture, politics, the well-being of people, and environmental protection are still lacking in the teaching of Geography.

The discipline, as defined above, focuses on the spatial variation in natural environments and how their resources have been used by people to make their living. But this has led to an overemphasis on physical rather than social Geography. The participants are looking at Geography in a modernization paradigm, where the individual learner, his/her personal history, milieu and experience are neglected. The learner is not given the chance to accommodate this publicly organized knowledge into his/her own personally constructed view of the world.

Contribution of Geography to Education

Geography, as part of the national curriculum, can have a positive contribution to the development of a child and the country as a whole, and the comments below indicate what the participants cite as the most important contribution. I asked the informants their views on the contribution of geography to the education of a child. Some of the responses are:

> *The child develops an attitude which helps him develop the environment* (ST (2) & (4), 26-6-1995, 4-7-1995 respectively).
>
> *The child gets knowledge of man-made resources and natural resources* (ST (3) & (5), 29-6-1995, 6-7-1995).
>
> *They get knowledge from the many branches of geography. Geomorphology: the knowledge of how rocks came into existence; and economic geography: the knowledge of urban development.* (ST (4), 4-7-1995).

> *One attains a certain income. It creates an awareness of the environment and people, as well as what other people are doing which facilitates comparison. It identifies how man uses natural resources like forests, minerals, etc.*, (L (2), 22-8-1995).

> *A child gets to know the resources around him, what it provides, and how to use that environment to give him a full life. Geography education is very principled in that everybody survives in a natural environment. Geography is the master key, it shows us the resources and how to exploit them* (L (4), 9-8-1995).

Awareness as to methods that can be used to exploit resources leads to designing curriculums with a bias toward studying the regions that have natural resources to exploit. It is taken for granted that education contributes to the development of a country by developing the human resources who, it is believed, will perform better if the appropriate skills to develop other resources are acquired.

Most respondents emphasize the fact that the physical environment is a source of livelihood to human beings and, therefore, by studying geography it will enable people to locate and develop resources for survival. They speak of a "full life" which human beings are expected to attain after exploiting the environment, but as radical Geographers and global educators have noted, this is not the case for more than half of the world's population living in South countries. Geography education could also guide children to methods of conserving and protecting the planet whose life is being destroyed.

This kind of conventional thinking about Geography leads to the development of locational theories to help students understand the best sites for economic activities using scarce resources. This necessitates the study of optimum locations of industries, transport infrastructures, towns and services for cost effectiveness. Here human beings are seen as another factor of production with no feelings and are treated like machines whose welfare is not considered. Human beings are also seen as being rational and are expected to act in an economic manner. This kind of liberal economic ideology introduced models in the study of geography in the 1960-70s.

Citizenship Education

The majority of participants below believe that citizenship education is one contribution of geography.

> *It introduces good knowledge, a code of conduct, and develops good attitudes towards the nation and other peoples* (ST (5), 6-7-1995).

> *Children will grow up knowing their responsibilities, such as the conservation of the environment* (ST (2), 26-6-1995).

Geography develops friendships with other people in fieldwork. They analyze the problems of people and suggest solutions which these people face in the future (ST (3), 29-6-1995).

We learn about other people's cultures (ST (2), 29-6-1995).

Most of the student teachers believe that Geography moulds students into good citizens with love and responsibilities to the authorities in the country. They believe the children will learn about other people and their cultures, and this helps them to develop positive attitudes toward other people both in their country and at an international level. Citizenship education was especially stressed in post colonial states where the subject was taught, in part, to reinforce the concept of the nation. Geography, therefore, has the potential to develop future citizens to imagine accurately, and to think critically about political and social problems in the world around them. It helps to build in them the commitment to love one another and work together to develop the nation, by bringing together people of different religions and cultures. Citizenship education in geography would empower citizens to confront assumptions concerning the aims of education, assumptions regarding who is going to be educated, and assumptions about what kind of knowledge, values and social relationships are going to be deemed legitimate as educational concerns. Citizenship education in Geography could combine historical critique, critical reflection, and social action.

A few students however focused on the role of foreign investors:.

A child will know the importance of foreign investment (ST (4), 4-6-1995).

Here the student teachers are thinking in terms of a modernization paradigm when they say children become aware of the importance of investment which helps in the development of the country. This paradigm advocates for importation of foreign capital and technology as well as managerial skills in South countries because they believe a lack of these variables is the main cause of poverty. In this case, Geography education will, therefore, teach about large scale capital investment in industry, agriculture, education, transport and communications, tourism and many economic activities. As we shall see later, the students are not made aware of the disadvantages of such investments to the people who are meant to benefit from them.

Geographical Skills

Three quarters of the students believe that Geography contributes to the development of useful skills as reflected in the following comments:

> *They learn the skills of drawing, statistics, collecting and recording data* (ST (2), 26-6-1995).
>
> *Through geography, he does sample studies and then later sees whether he can apply it to Uganda* (ST (1), 22-6-1995).
>
> *It contributes to literacy, writing, and reading which he can use to record his production later. The person goes to the bank and deposits his money, fills in bank forms, and can read posters* (ST (1), 22-6-1995).

With regard to skills, the students emphasize those skills learned in class such as map reading, recording data, statistics, drawing maps, reading and reasoning. They elaborate that map reading helps people when traveling, and rally drivers. In addition to reading and writing, they feel it helps people read signs, pamphlets, and instructions and helps them to fill in forms in banks, offices and even hospitals.

The student's orientation to geographical skills however tend to reflect a technical orientation. In contrast, as the transformative and radical Geography paradigm argues, literacies which are being far more strongly developed in Geography are those connected with decision-making and value clarification and analysis. Geography now has a role in developing political literacy and an ability to read, analyze, clarify and interpret one's own and other peoples' values, interests and points of view.

International Understanding

A few participants think that Geography contributes to international understanding:

> *By learning about North America's development they will appreciate the level of development the north has reached and then devise means of overcoming their own poverty in Uganda* (ST (4), 4-5-1995).
>
> *He becomes aware of what happens in other areas of his country and the world. It promotes international understanding* (ST (2)&(3), 26-6-1995, 29-6-1995).
>
> *The child learns from other people's experiences with things like urbanization, improvement in transport, pollution, industrialization, fishing, agriculture, etc. There is a transfer of learning, since the child gets to know the differences between development in the U.S.A. and Uganda. They can learn the problems of development* (GP (4), 16-8-1995).

The above statements reflect a mix of paradigms. The first student teacher clearly believes that Uganda, as a South nation, should emulate the North in overcoming poverty problems, which underlies a modernization perspective. The other two statements suggest ideas which may be more open to considering problems of modernization as well as to promote international understanding. One officer, however, does not believe teachers in Uganda are capable of helping students to get this international understanding aspect of Geography:

> *Our teachers do not have the capacity to relate geographical knowledge and skills to the Ugandan situation, and apply it to the local situation. They use lecture methods only and less practical work, otherwise, geography could contribute much, since it is related to everyday life* (AC (1), 2-10-1995).

The above response emphasizes learning from North countries which may imply imitating western culture. When the students say it helps them to accept their poverty it may imply that the dominant ideology embedded in this content teaches them not to question the unequal and unjust distribution of world resources. It teaches them to accept the so-called 'vicious circle of poverty' as the main cause of their poverty (Chambers, 1983).

The topics selected in North America, Rhine Lands, the rest of Africa and Uganda itself may not promote international understanding the way I see it. International understanding means the promotion of a comprehensive understanding of the ways of life, values, and aspirations of all people in the world irrespective of nationality or culture. This also includes understanding the requirements for living together peacefully and equitably on this planet. Besides understanding other peoples, children should also critically understand their own ways of living in their local and national environments.

Obstacles To Good Geography Practices

A number of student teachers however remain skeptical about the relevance of Geography.

> *But the geography of today is too theoretical; students learn it to pass examinations. Students do not go for fieldwork, have no teaching aids to understand concepts clearly, and tend to cram what is taught to them in order to pass examinations. Students drop from schools after senior four; their geography education ends there and they cannot apply it. So it does not contribute to the education of a child who drops out of school at the end of senior four* (ST (5), 6-7-1995).
>
> *Geography education is irrelevant to the child living in a slum; what he needs is the knowledge of daily survival* (ST (1), 22-6-1995).

The above participants do not see geographic knowledge as contributing to the survival of a child who has dropped out of school after the O-level. To the participants above, a slum dweller who is not certain of getting daily food, medical and other welfare services will not find current geographical education meaningful to him/her.

The Concept of Development

In the interviews, I encouraged the research participants to tell me what they understand by the term "development". The majority of the participants agreed with the following statement:

> *It is a qualitative and quantitative change. Development of agriculture involves using tractors and fertilizers. It means political stability and an increase in information, for example, improved methods of animal rearing. It means an increase in value or quality of animal products. It means the development of wildlife, infrastructure, the way people look, housing, vehicles, good farms, schools, hospitals* (ST (2)&(4), 26-6-1995, 4-7-1995 respectively).

To the students, development is an evolutionary process of moving from a traditional way of living to a modern, western lifestyle that has new methods in agriculture, animal husbandry, better infrastructures, dressing, housing, etc.

One of the lecturers believes development is adopting a western cultural lifestyle:

> *Development means being able to exploit resources, and knowing how to live in a modern, healthy environment where you boil water, eat good food, and dress smartly. It does not mean wearing old cultural styles like hides, skins, or barkcloth; instead, you wear suits* (L (4), 9-8-1995).

The modernization paradigm has influenced some people to believe that the traditional way of dressing is not the best and suits should be worn instead. Other participants stress the importance of improving people's lives:

> *Development is growth; there is an improvement in quality, both social, academic, and economic. People work together to develop, to build schools, dispensaries, roads, etc. There is an improvement in all ways, for example, the college is already contributing to the development of Uganda* (L (2) & (3), 22-8-1995, 9-8-1995).

Most of the participants define development as an increase in the production of goods and services according to a modernization paradigm of growth and technological advancement. However as radical geographers have argued, such concentration on economic growth often leads to exploitative conditions of work and meager wages, health hazards, environmental degradation, restriction of political rights of the majority, severe inequalities of wealth, and unequal access to socially desired rewards. Only a minority of participants recognize the importance of the participation of people in political and economic development. They also mention the importance of a healthy environment through proper nutrition, clean water, and education for all people. This makes a distinction between development and economic growth.

Basic Needs

When asked what needs could be provided for the people of Uganda in order to ensure development, the majority responded as follows:

> *Shelter, food, medical care, clothing, education and security* (ST(1), 22-6-1995).
>
> *Uganda needs technological know-how to develop our resources. In other countries, deserts have been made productive while in Uganda, which is rich with good soil and climate, suffers from hunger. Our education is too theoretical, and is not geared to practical technology and skills like how to exploit our resources using local technology* (L (4), 9-8-1995).

A technological paradigm is stressed by the participants above and below:

> *Basic needs of a country depends on the physical set-up and level of education. Uganda needs relevant education so that she can develop her own technology or utilize technological transfer to enable them to have sustainable development. Our needs are economic and social needs. Everybody lives below the poverty line; they need shelter, health, clean environment, and education. Our capital income is high but the ordinary person lives badly* (UO (1), 29-8-1995).
>
> *Our country is poor in the sense that per capita income is low. We have no technology to develop our resources. Resources are not utilized because of a lack of capital, technology and managerial skills; this is a result of poverty* (UO (2), 23-10-1995).
>
> *Uganda's needs are manpower development, economic development, social development, political development, security and health care. These topics are covered in the geography curriculum. Manpower development is covered when we teach our student teachers how to become teachers (methodology area). Topics related to economic development are irrigation, environment, exploitation of resources renewable and non-renewable. Social development is covered when we teach about development schemes which bring people together* (L (1), 22-8-1995).

Only a minority of participants suggested that education should be relevant to development of the poor to enable them to meet their basic needs. Poverty is associated here with a lack of technology, capital and managerial skills to develop resources, and per capita income is used as an indicator of poverty. One participant, however, recognized the fact that although Uganda has a high per capita income, majority of the people are poor. But a modernization paradigm is still used to suggest trickle-down solutions which do not help the ordinary person. The quotes above imply that they want to imitate the North by acquiring high technology for exploiting the resources available to the maximum. This is contradicted when they again say they need appropriate technology to exploit the resources in order to avoid hunger. These responses also imply that development can only take place in classrooms when students receive packages of knowledge and skills from teachers. Most people in Uganda believe that better education will guarantee a job in the modern sector of the economy in urban areas, and this motivates both parents and children to work hard and pass the examinations. For example, when teachers receive professional training in colleges, that is a job. Other participants suggest that people exercising their rights is the answer:

> *Diet is not good, nor is education. Freedom of expression and respect for our basic human rights are issues to be considered in the concept of development* (ST (2)&(3), 26-6-1995, 29-6-1995).
>
> *We need freedom of choice, expression and association* (L (2), 22-8-1995).

Freedom of choice, expression and association are also concerns of the lecturers which directly suggests domination that weakens people and there is a need to change the situation. Freedom as an indicator of development is difficult to use since it is very unreliable. Some people will be free today and a coup d'état will make them lose their freedom overnight. Liberation is sought to alter relationships between director and directed societies, between privileged elites and the masses. Japan was cited by one participant, but she was able to modernize partly because the people (especially the elite) participated with the government in defining the situation and influencing policies which were relevant and appropriate to particular areas (Alatas, 1977).

These responses reflect a concern for equal distribution of basic needs like food, shelter, clothing, medical care, education, security and respect for human rights. They bring up the issue of the rich living in affluence while others have no shelter or food. The majority of people in most developing countries live in absolute poverty while a few elite who live in urban areas lead an affluent life. To some participants, especially student teachers, the most important thing is to get a certificate for further education:

> *We need to pass examinations and get higher levels of education* ST (2)&(4), 26-6-1995, 4-7-1995).

Another participant believes a peaceful atmosphere is important:

> *The political climate is conducive to research in order to be able to produce more goods and services like Japan and Britain; high technology man!* (L (3), 9-8-1995).

A conducive political climate is suggested as one variable which will enable research to take place so that technology is developed in the country.

The critical paradigm in Geography however, advocates for a radical change of the existing social structures so as to achieve a more equitable distribution of resources, economic power and the establishment of new relationships between social groups. The fundamental argument is that the development of other groups of people has been, and still is, the development of underdevelopment of other groups of people. Within a nation state, the development of the rich enclave or the upper class is inextricably intertwined with the poverty and underdevelopment of the poor masses. Social justice or distributive justice can, therefore, be implemented by radically transforming the current social, political and economic structures.

Development is frequently described by the student teachers as a change process, stressing the benefits to be acquired as a result, such as material prosperity, expanded consumption, better housing, medical care, wider educational and employment opportunities. This uncritically supports change strategies which value efficiency above all, and emphasize the role of trained managers, technicians and high level manpower. Development should be accompanied by social justice, not domination and exploitation of people by the minority who benefit. (Binns, 1995).

Development is defined by the participants as an evolutionary process in terms of economic growth, but leaves out important aspects of cultural, social and political development. Development should be total so that the whole person is developed instead of only a part. Development was defined by the UN. in one of its documents in the 'Forward-Looking Strategies' (Hilka and Vickers, 1994) as:

> ....total development, including development in the political, economic, social, cultural and other dimensions of human life as well as the development of the economic and other material resources and the physical, moral intellectual and cultural growth of human beings. Development also requires a moral dimension to ensure that it is just and responsive to the needs and rights of the individual and that science and technology are applied within a social and economic framework that ensures environmental safety for all life forms on our planet (p. 47).

Development should concern people, not only production or productive capacity, as defined by most of the participants emphasizing importation of high technology for agriculture. What they define here is economic growth, and that is why most are stressing the need for capital investment to foster economic growth. Development is a process that enlarges people's choices, enabling them to take part in reaching a consensus about the goals and processes of change. Development should also include enhancing the capacity of human beings to realize their potential for creativity and spirituality (Young, 1993). Binns (1995) is concerned about the way the concept development is defined below:

> On occasions no reference whatsoever is made to people, their living conditions and how these might be improved. The views of those individuals and communities who are to be developed are scarcely mentioned and seem to count for nothing .... Development from above, which is invariably impersonal, arrogant and dictatorial, must be replaced by development from below which is more people-centred, sensitive and democratic (p. 308).

Since geography education is concerned with people, development should be defined to the children in such a way that they understand that it is concerned about the welfare of people. Binns (1995) summarizes that it is a removal of poverty, unemployment and inequality with the goal of self-reliance. Geography, therefore, has a contribution to make to the development of a child and the country as a whole in terms of promoting awareness, interest and understanding of the diversity of the world's peoples and places.

The way Geography is defined above helped me to understand the criteria used in the selection of the content and methods of teaching geography in Uganda. A majority of the participants emphasize the value of exploitation of resources using high technology, which explains the selection of high technology projects in the curriculum (Appendix 5 and 6). The topics and objectives selected are those they think can foster the economic growth of Uganda by raising the Gross National Product. One participant mentioned GNP. to illustrate the rate of economic development of Uganda. GNP. as a measure of development is used in Western countries and tends to reflect definitions of productive activity as understood in an industrialized market economy. However, much non-market production is excluded and when it is used in countries like Uganda, with large non-market sectors, serious distortions are bound to occur. Furthermore, the production of harmful goods that pollute the atmosphere and injure health, and military wares that kill are included in GNP. Secondly, data collection techniques which are quantitative and leave out non-measurable variables are inconsistent and faulty. It gives no indication of how wealth or income is distributed or of 'quality of living' factors. In countries where sharp inequalities in distribution of wealth occur, where only 20 percent of the population enjoy a very disproportionate portion of total wealth and the well-being of the majority is poor, this is not reflected in national statistics (Young, 1993; Waring, 1988).

Alternatively, the United Nations' designed Human Development Index (HDI) is a measure that can be used instead of the GNP. HDI has three main components: life expectancy at birth, literacy, and income (purchasing power). This would also take into consideration basic education, primary health care, safe drinking water, and family planning. The index is a measure of the deprivation a country suffers in each of the three components. It is concerned with the development of people. It is a process of enlarging people's choices, the most critical of which are to live a long and healthy life, to be educated and to have access to resources needed for a decent standard of living. Additional choices include political freedom, guaranteed human rights and personal self-respect. Although in its initial development, HDI has been criticized for not being gender sensitive and for using average non-distributional income measures (Morris, 1993), the index has now taken into account more specific sub-indicators such as gender and income inequities.

The O-level geography syllabus was in fact developed based on a definition of development which means economic growth. As it will be shown later, its content is comprised of capital investment of big machinery, dams, irrigation schemes, plantation agriculture, industries, and very little on food production for local consumption and the well-being of people in particular. Emphasis on economic values reflects the values of the affluent, materialistic culture of today's world. This results in over-concentration on the geography of economic production which is actually a modernization paradigm.

Geography Knowledge in the NTC Programs

In sum, the lecturers, student teachers and administrators participating in the study reflect generally a modernization understanding of Geography as a discipline as well of the broader problems and issues of development. It is pertinent now to turn to what knowledge and content are emphasized in the NTC Geography program, as reflected in curriculum objectives, syllabus topics, examination questions and textbook sources.

Objectives of the Geography Curriculum

The present Geography programs in National Teachers Colleges are actually based on the Uganda National Examinations Board's examination syllabus 273. Previously schools were teaching the Ministry of Education and Sports teaching syllabus for Senior One and Two and, therefore, the colleges were also training their teachers how to teach it. This was dropped as soon as schools started teaching the examination syllabus from Senior

One, as clearly stated in the college syllabus document of 1993 (Appendix 5) issued by the National Teachers College Geography panel:

> Since secondary schools teach geography syllabus 273 from senior 1 to 4, the geography panel members feel that N.T.C.s regional geography should emphasize the preparation of students so that they effectively teach syllabus 273 (Appendix 10).

In theory, the NTC. geography panel is made up of all Geography Heads of Departments from the ten colleges in Uganda. The chairmanship of the panel rotates among the ten heads of department. This panel sits frequently to discuss and evaluate the teaching of Geography in the N.T.C.s. However, according to a high ranking official from Kyambogo there are shortages of finances to enable it to function properly. According to one ITEK official, some lecturers do not turn up for meetings because there may not be any financial remuneration which in turn may reflect a lack of interest on the part of college directors. One Department Head however confirmed that the Ministry of Education and Sports, due to a shortage of funds, gave them only five days within which to develop a population syllabus. Another head of department, however, seems not to have participated in any meetings. He said he is aware of the existence of a geography panel but sometimes the college never gets any information regarding meetings or else received notification once the meeting date has passed. This means colleges whose lecturers do not participate just receive decisions and instructions from ITEK .

In order to understand the criteria used to select content methods, type of examinations and textbooks used in NTC Geography, it is relevant to analyze the schools' ordinary-level Geography examination syllabus "273". The NTC. geography programs as noted above are designed to train a teacher to teach syllabus 273 content and this is the same knowledge they acquire during the two years of college training. The objectives of NTC geography programs are also based on the objectives of teaching geography in senior secondary schools. Objectives are critical because they provide an explicit guide to teachers, and serve as a criteria for the selection of materials, content, and the methods and preparation of examinations. (Guba and Lincoln 1981) These objectives also reflect the prevailing paradigm from which the objectives, content, textbooks and evaluation methods are designed. As detailed in Appendix 6, the Geography syllabus 273 (1995 year) seeks "to prepare the pupil for service to his country" by:

1. making him aware of his immediate environment;

2. helping him to acquire the appropriate attitudes and skills with which to interpret and develop that environment including those of recording, analyzing and synthesizing the observations that have been made;

3. helping him acquire knowledge and understanding of relevant aspects of the larger environment in which the community and country exist by selecting topics of particular applicability to his environment;

4. helping him to acquire the ability to use geographical knowledge of the larger environment in which the community exist by selecting topics of particular applicability to his environment;

5. helping him to interpret photographs, depicting both physical and human features and representing or interpreting geographical statistics;

6. helping him to understand fieldwork techniques and to study a local area in the field (Government document, 1990-95).

As already discussed above, most responses from the participants on the issue of contribution of Geography to the education of a child seem to recite the above objectives as the main contribution of geography to education. For example, they all use phrases such as "making him aware of his immediate environment;" "acquire knowledge and skills;" "applicability of knowledge and skills from larger environment to Uganda;" and "fieldwork techniques."

From the interview data, it can be seen that the above objectives are somewhat general and vague, making it difficult for individual teachers and geography specialists in the Ministry of Education and Sports to interpret them properly. For instance, a number of participants responded that the concept environment is not defined in this syllabus and, therefore, there is a tendency to assume that it means the physical environment only. This explains why political, social, cultural, and ecological aspects of environmental care are hardly touched in the teaching of Geography, while stressing land forms and natural resources.

For the second objective, the child is supposed to acquire "appropriate attitudes and skills to interpret and develop that environment." It is difficult for the people implementing this syllabus to know what is appropriate and what is not, and in fact the officers to whom I posed this question had no answer. Since environment is not defined, one lecturer said the teachers and students interpret this objective to mean developing skills of recording, analyzing and synthesizing the observations made when teaching climate, economic activities, physical features and population which excludes aspects of environment not observable and measurable.

The third objective also does not spell out the relevant aspects of the larger environment to the teachers. The teacher, therefore, may find it difficult to select topics of particular applicability to the child's environment. What is the larger environment? Are women, for example, relevant in the child's larger environment? What geographical knowledge are we talking about in objective four? These are issues that were assumed teachers and student teachers do not know, according to one official in UNEB.

The fifth objective deals with the interpretation of physical features and human activities in a photograph as well as geographical statistics. In this regard, the kind of photographs available in schools/colleges, and in the Ministry of Education and Sports which distributes them invariably show features of modern life which include towns, schools, factories, roads, and crops grown on a large scale. The micro-environments, especially traditional and indigenous, familiar to a child in local contexts tend to be excluded and hence not deemed important in the geography curriculum.

The objectives ask teachers to produce students with certain measurable skills and knowledge deemed useful to the society in which they live. In talking with the lecturers and student teachers, this usually meant skills of map reading, understanding physical environmental features and events, and economic activities functional to modernization. However, as a transformative paradigm would stress, there is the need to emphasize other forms of knowledge useful to the development of the citizens of Uganda such as indigenous wisdom in agriculture, environmental sustainability, spiritual/ethical beliefs, and literacy for social and political empowerment towards transforming society. Last but not least, the syllabus as is the usual case in Uganda syllabuses and teaching practices uses sexist language by its exclusive use of the words "he" and "him".

It is pertinent to see that the objectives of the high school syllabus 273 are closely echoed in the objectives of the NTC Geography program. For example, objectives one and two of the NTC. syllabus are the same as numbers one and two of 273. Objectives three, four, five, six, seven and eight of NTC. are on the comparison of economic development between Uganda and other parts of the world which is also emphasized in objective three and four of syllabus 273 .

Although the NTC. Geography objectives (Appendix 5) bring in an element of "ways of life of people," this is a vague expression because it does not spell out whether those ways reflect social, economic, political, or cultural aspects. Objectives nine, ten, eleven and twelve of the NTC. are on practical geography, fieldwork, and geographical skill using maps and photographs which are invariably the same as those used in secondary schools. As in the high school syllabus 273, the NTC curriculum does not include objectives relating to knowledge for empowerment and transformation.

In seeking to develop NTC students into professional Geography teachers, the curriculum emphasis is to ensure that the student teachers are familiarized with the knowledge and skills they are going to teach when they qualify. There is a compulsory section on map reading and photograph interpretation, as in syllabus 273, with a number of questions involving simple statistics in other sections of the paper. This explains why objectives 1 to 7 focus particularly on geographical skills of observation, recording, and interpretation of the landscape in the field. This includes drawing sketch maps, diagrams, simple graphs, description and interpretation of statistics, photographs and maps. Furthermore, there is no awareness or use of issues raised by global and development educators about the ideological assumptions underlying versions of maps such as the more critical Peter's projection versus the more critical Mercator projection.

There are three objectives focusing on Geography content (Appendix 5):

> The ability to describe clearly in writing or orally geographical features and areas, including those observed in the field.
>
> To help the students to understand the basic human and physical elements of geography and to show the interrelationships of these through study of particular areas.
>
> To encourage students to acquire a sound and wide factual background in all aspects of geography (Government document, 1995).

The curriculum focus in these objectives is on the student teachers acquiring in a passive way the "facts" of Geography. Yet in reality, Geography is a dynamic subject which changes with time and within space. Even geographical regions change temporally because some are economically, politically or socially constructed. For example, the natural regions described by Herbertson (1910) and used in the geography of the 1930-60s are now out-of-date. Currently, the syllabus depends on textbooks to deliver knowledge on North America, the Rhine lands and the rest of Africa. Since these development schemes are often not familiar to students, they also end up cramming what is in the books. Thirdly, these are environmentally deterministic kinds of objectives fostering the idea that the environment determines the activities of man. In contrast, a transformative paradigm in geography would have encouraged student teachers to critically analyze the society in which the students live, effects of modern development on the ecology and many other issues from local to international levels. The student teacher, according to the above objectives, hence does not learn to consider the political, social and cultural complexities of human-environment relationships.

The remaining objectives are on the methods of teaching. As considered more fully in Chapter Six, they encourage the use of textbooks to obtain information for teaching, whereas other sources are not emphasized. Although there is reference to demonstration and discussion of methods of teaching to enable students to learn and use them later on, these objectives are usually not practiced in the colleges. While the student teachers are encouraged to visit other parts of Uganda and East Africa if possible, the area outside the college fence remains unexplored.

The Geography program is clearly objective-led, with specified behaviors which cultivate a linear view of learning. This denies the student time and space to assimilate learning into his/her cognitive and affective structures. Examinations are based on these objectives because they are set with the ideal subject candidate in mind. Secondly, if the learning framework is not tightened by these objectives, the students would participate in the definition of its limits rather than receiving an already made cohesive program. Flexible objectives allow the reflection of actions, values and the attitudes that are built into the process of dialogue are revealed. In such a context, political literacy, economic awareness, numeracy and information technology take on their full meaning. Student achievements are offered as a profile; they are personalized descriptions of capacities and achievements based upon the history of a young life. The curriculum, in other words, should be more human; as Hall (1990) put it:

> Concepts - be they greenhouse gases, hedonic pricing, or contingent valuation, are handled in the course of open inquiry. Learning is not canalized into precisely determined subject objectives; experiences are integrated not collected. Culture is "wet nosed" because its objectives are qualitative and evolving, negotiable, contingent, and open to democratic review. It is a moral approach to learning because it is concerned with people as such at a personal, diagnostic and formative level: objectives are expressive of that view of mankind and of the earth as home of man which is not merely competent, but also caring and compassionate. In essence it is a humanistic curriculum (Hall, p. 322).

Content and Knowledge

Part One of the syllabus content introduces student teachers to the sources of Geography where students can do research and learn how to study, namely books, magazines, statistical publications, maps, atlases, pictures, newspapers, and photographs. The designers of this syllabus could have explained more about books, otherwise students might think that only a geography textbook contains useful knowledge in geography education. Novels, history, economics, political, religious and cultural books can be also good sources of geographic information since the subject is interdisciplinary (Binns; 1995). Music and musical instruments, as well as handicrafts, are also left out. Yet with a variety of traditional music and crafts from all parts of Uganda, the students can learn much from each other. Not least, the museum is a good source of historical and cultural geography as well as information on migrations of people.

Although one of the objectives encourages students to use fieldwork, here it is not indicated as a good source of geographical information where students can go to do individual or group research study. The only practical advice given is to practice making notes from lectures, books and to read widely in order to be able to write essays. This is clearly promoting academic book work at the expense of practical work. In practice, making teaching aids from locally available materials is not encouraged as elaborated in Chapter 6.

Regional studies are another major component in the required Geography content of the syllabus. The approach recommended is environmental deterministic in that landscape, climate, and natural resources are concentrated on with little emphasis on people and their welfare. As well, the focus on economic development emphasizes exploitation of resources at the expense of care and preservation of environment. Whether and how modernization might impact negatively on the spiritual, cultural, social and political development of people are not explored. While "international understanding, interdependence and cooperation of people" are also emphasized, it is not accompanied by an equal concern for equitable distribution of resources and benefits among all peoples in the world.

The syllabus clearly states that two regions should be studied, one "developed" , the other a "developing" area. For the paper on East Africa, student teachers encounter themes on agricultural modernization. (e.g. ranching and irrigation); resettlement schemes (e.g.Mubuku and Mwea Tabere); exploitation of natural resources (e.g. mining and forestry)' industrial and tourism development; trade; transportation; urbanization foreign aid and regional cooperation.

These themes are developed with a strong assumption of "trickle-down" in mind, that is, benefits from modernization programs and projects will flow down to the poor majorities in the countries concerned. The "positive" role played by large scale investment , such as in irrigation and ranching schemes, urbanization, and tourism is also a constant theme. In contrast, this section of the syllabus does not mention the value of local food production, subsistence agriculture and ecological sustainability. The realities of exploitation and suffering in urban slums or rural areas, factories and plantations are not mentioned. In sum, this section on the regional geography of East Africa was designed with the idea of economic "development" cast in the modernization paradigm while neglecting vital issues of social, moral, cultural and political development of people.

The section on North America focuses on the following themes:

1. Fishing, mining, hydro-Electric power, forestry and mining in British Columbia
2. Urbanization in the concept of development and distribution with New York as an exemplar.
3. Cotton Belt - causes and effects of changing pattern of land use
4. The Tennessee Valley Authority - a case for environment protection
5. South California - prosperity in a hostile environment and exploitation of natural environment through the film industry.
6. The Canadian provinces - focusing on extensive farming and interproduction
7. The St. Lawrence Seaway - the way the seaway was developed and the value of an inland waterway.

The topics selected are those which use advanced scientific and technology in the exploitation and development of resources, machinery, chemicals and large-scale production of goods. Little sensitization occurs in terms of the quality of human life as a result of outcome of these modernization activities. For example. what happened to the people of the Tennessee Valley after the construction of the dam? What kind of life do the affluent citizens of New York enjoy compared to the poor in the inner cities of North America? In the cotton belt, who were the people working in the fields and who benefited as this cash crop was being developed? What are the effects of chemicals on the environment and the people in those regions where chemicals are used in the production of crops? How do the student teachers in East Africa relate this high technology economy to their own lives in the marginal rural and urban areas of Uganda where their priority needs are clean water, medicine, food, clothing and better shelter. If some of them do not have even a hoe to grow cassava, how will they aspire to use the high-technology agriculture lauded in the curriculum? The topics do not reveal the political, social and economic relationships between different social classes of North Americans. They do not reveal the breakdown in community life, crime and diseases of affluence and poverty, and the culture of self-centred and individualistic consumerism North America.

With regard to the section on the African region as a whole, the topics covered are except for the first item, almost the same as those from East Africa:

1. Conservation and management of renewable resources for example vegetation and fisheries.
2. Agriculture - from traditional to commercial agriculture
3. Development of river resources - Hydro Electric power, tourism, Falls
4. Problems of landlocked countries

5. Trade and industrial development
6. Urbanization - problems and development strategies

The modernization paradigm is again emphasized here. The trickle-down theory is strongly implied in examining projects which will bring about economic progress to the poor peoples of Africa. Alternatively, the historical exploitation of resources - people, forests, minerals- and accompanying retardation of development of the African continent are not touched. Traditional agriculture and knowledge are de-emphasized while traditional trade and development initiatives from within are not mentioned. The people working in industries and issues regarding their conditions of work are not mentioned. As well, negative consequences arising from the role of transnational corporations, despite serving as vehicles of capital and technological investment, are excluded from study. Women and children who carry out most of the agricultural production also receive no attention. Although the inclusion of a topic on environmental protection deserves acknowledgment, these limitations in the regional geography of the African continent confirm the modernization paradigm

In the section on the Rhine lands, which includes Belgium, Luxembourg, Germany; Switzerland, and Holland. the major topics are:

1. The Rhine as an internal route
2. Switzerland as a landlocked country - with few resources but highly developed
3. Germany - industrialization of the rural region
4. Farming in the Rift valley
5. Challenges of Unification of Germany (e.g. unemployment etc)
6. Benelux countries ; the Rhine delta; an international port - Rotterdam and Europort
7. Trade; European community and global connections

These topics again emphasize scientific and high technology agriculture and industrialization which do not relate to the realities of most Ugandan children. At the same time, the street children, women, and the poor who exist in European inner cities are not mentioned. The effect of the industrial revolution on the poor within North countries, as well as the underdevelopment of the Third world or south regions including Africa, is not analyzed. How South elites, including dictators and criminals, and transnational corporations have deposited billions of dollars in Swiss banks is not questioned when teaching about the development of countries of the north like Switzerland.

In summary, the syllabus content in the NTC Geography program shows clearly a tendency to promote the modernization paradigm. A scan of examination papers over the

1984/95 years confirms this tendency as questions on 'development' stress the contribution of cash crops, urbanization and industrialization while also reflecting an environmental determinist orientation. I looked at examination papers for National Teachers Colleges from 1984/85 to 1994/95 academic years. (Appendix 8) The regional papers originally included South East Asia, Australia and South America but these were dropped in the 1993 syllabus because they do not appear in the O-level examinations. In all the regions, the candidate is required to describe and explain the physical features, climate, and occupancy of such a region. Human activities like trade, agriculture, commercial farming and ranching, industrial development, urbanization and its problems are stressed. Also stressed are river development projects like irrigation schemes in Africa and East Africa, T.V.A. in the U.S.A., problems of overpopulation, and natural disasters such as droughts and floods.

According to the marking schemes available, the students are not required to critically analyze the unequal distribution of development resources amongst the people and regions. Neglect of the poor, subsistence agriculture, social services for the poor, environmental destruction, and ethnic marginalization are some of the most important factors left out. The questions also tend to leave out issues of women, human rights, environment, ecology, culture, political and social development and concentrate instead on economic development according to the modernization paradigm. Furthermore, the questions in these examination papers were at least academically demanding to the level of a diploma student up to the academic year 1992/93. For example paper two, 1988/89, question six asked: (Appendix 8)

> a) Using the sketch map provided, mark and /or name;
>   (i) the main Japanese industrial zone
>   (ii) the four islands that comprise Japan
> b) Evaluate the natural resources of Japan
> c) Examine the view that Japan has solved her resource limitation problems
>   by becoming a world economic superpower.

However, the questions were too simplified when the syllabus was reduced to closely parallel the topics found in the high school O-level syllabus 273 . For example, 1993/94 paper II (two), section B, number five (Appendix 8);-

> (a) (i) Draw a sketch map of the southern U.S. showing the Old and the
>   New Cotton Belt.
>   (ii) Examine the factors which led to the establishment of both the old
>   and new Cotton Belt.
> (b) Outline (i) The benefit
>   (ii) Problems of the Cotton Belt.

This definitely is a very simple question, fit for O-level students doing syllabus 273. It requires recall, analysis and the application of knowledge.

Overall, both the syllabus content and sample examination questions reflect an avoidance of controversial issues of economics, development, politics, culture and welfare of people in the selection of content, issues which would help the student teachers in posing alternative paradigms when they embark on their Geography teaching in schools. In turn, although it will need independent confirmation in another study, one can surmise that such a Geography curriculum in school classrooms is likely to reinforce the alienation of young people from their traditional and indigenous community contexts. Furthermore the college programs show a serious lag in relating geography education to societal change. They are not concerned with major issues of contemporary society of Uganda and other countries studied. These issues involve the survival of the human race, poverty, famine, pollution and the environment, warfare, urban disasters, the exploitation of workers in factories, the clash between "races"/ethnic groups. and the profound changes in family structures and relationships between the sexes (Hicks, 1982).

Section B of the Content section requires student teachers to undertake a detailed study of the elementary geographical skills of map work, photographs and fieldwork techniques. This section is included here because graduates from N.T.C.s are supposed to teach senior one and two these elementary geographical skills. (Appendix 5)

Although the student teachers have already learned these skills in their secondary education, it is required in NTC because the emphasis is on competence on class-room practices and professional development of the teacher. The required skills listed as include scales and directions on a map, distinguishing between a map and a photograph, contours, cross-sections, use of colour and symbols on a map, study of a market and traffic flow, rural and urban land use, study of road and soil types, map drawing techniques; use of dots, circles, colours symbols, grid references, longitudes and latitudes. While such basic technical skills in Geography are not inconsistent with a transformative paradigm, it is clear that these are perceived by geography educators and students as being very important in the curriculum. Indeed, the two compulsory (out of 3 questions) in the NTC Geography Methods examination paper test competence in map work and photographic interpretation, paralleling the emphasis in the high school O-level syllabus 273 examination.

Section C, Part One concentrates on the high school syllabus 273, methods of teaching, making lesson plans, and planning a scheme of work. Methods of teaching which are mentioned are the use of photographs in teaching, sample studies and the topic approach, note making, and the preparation of exercises (Appendix 9). Part Two of Section C is more on the formal analysis of teaching methods and summary of previous work on methods (Appendix 5). The paradigmatic orientation of this section will be explored in Chapter 6.

Perceptions of Geography Curriculum Content

It is appropriate now to look at the perceptions of research participants themselves regarding the curriculum content which I have analyzed above. Allocated eight hours per week, the NTC Geography syllabus is covered in two years. The Geography lecturers, directors and student teachers at the sample NTCs and one ITEK official were asked to give their views on this syllabus in terms of intellectual and social development and how it helps the teachers in their classroom teaching.

To begin with, the majority of participants feel that some topics are too abstract and irrelevant. For example they responded:

> *Theoretically they have got interesting stories like the Dutch reclaiming land; you may think they have super natural powers to do this. We learn new words and gain some knowledge but it is difficult to put the content into practice, making the syllabus irrelevant* (ST (4), 5-7-1995).
>
> *I am poor, but how will the geography I have learned lead me out of poverty* (ST (2), 26-6-1995).
>
> *Some topics are irrelevant, like in Uganda teaching about irrigation and glaciation. It would be wise to learn topics which are relevant to people* (ST (2), 26-6-1995).

The students here look at irrelevance in terms of not being able to translate theory based in other situations into the Ugandan context. Secondly, the knowledge acquired is not seen as useful for overcoming personal poverty.

Another participant below said:

> *The curriculum is irrelevant in that it leaves out environmental education, does not cover physical geography in the development of schemes, and yet the physical background makes it impossible or hinders these development schemes. The effect of these schemes on people is missing; they just emphasize the positive side of them. It leaves out subsistence agriculture and handicrafts, yet some countries depend on handicrafts to earn a living and they use natural resources to make these crafts. The teachers themselves are not dynamic enough to see some of these things; they just teach what appears in textbooks* (GP (3), 7-8-1995).

The above participant believes that if the effects of the development schemes on people, subsistence agriculture and handicrafts were included, it would have been relevant, while others believe it is a problem of misinterpretation:

> *Irrelevant because it doesn't emphasize affordable technology. It is too theoretical without technology in the country to back it up, and it is isolated from reality. It is irrelevant because it is too sketchy, teachers are too inexperienced and do not know how to expand on it. The teachers teach it in a dry fashion, that is, they give skeleton material. Manuals will help teachers break it down. Curriculum makers should also help N.T.C. lecturers to interpret the curriculum properly for student teachers. They should give manuals like the way doctors are given instructions on how to use a drug. The curriculum is a drug which needs a manual on how to use it. For example, in the O-level syllabus the topic 'cotton growing in Gezira scheme' is very misleading; a teachers believes that he/she has to teach cotton only. The curriculum center should tell the teachers that they should teach pupils that such technology can be used to irrigate beans, bananas, sorghum, etc.,*(L(4), 9-8-1995).
>
> *It is not irrelevant. What matters is the people who implement it, that is, the way they interpret it* (D (1), 12-10-1995).

Others wish to see emphasis on affordable technology and more concentration on East Africa and Uganda more than other countries.

> *It is irrelevant in that it concentrates more on developed countries. We want it to concentrate more on Uganda, East Africa and less on other countries. It should concentrate on physical geography, as we have a variety of physical features here like volcanic, faulting, glaciation, rift valleys, coastal features, and the climates of Uganda and East Africa. Human economic activities like types of farming, problems of people, land reclamation in East Africa industries here, urbanization in Uganda, East Africa and the rest of the world* (GP (4), 16-8-1995).

As the respondent also noted, most of the textbooks on physical geography in Ugandan schools give examples of physical features like stalagmites and stalactites from other countries while these limestone features are present in Western Uganda near Nyakasura secondary school. Pupils learning about crater lakes are given examples from other countries whereas they are available in Bunyaruguru County in Western Uganda. This is confirmed by Chambers (1988) when he says that there are micro-environments familiar to people in a given locality that can be studied, researched on and developed. Instead, everything is looked at from the top, where generalizations are made at a regional, national and international level ignoring such familiar features to the people. The participant above, therefore, looks at this syllabus as being irrelevant, since familiar features to the students are left out or ignored.

Geography as field of study could create within people an awareness of the social forces acting upon them and a desire to resist political and social manipulation. It would seek to provide knowledge free from ideological domination and should be based in schools and the community in order that teachers and students could continually test ideas in action. Education should be related to the people in the community where the school is situated. I am looking at relevance to the pupils, to their experience and to the world in which they are living. Learning to learn in this context is more important than the actual acquisition of knowledge which the elitist examinations of Uganda tend to emphasize.

The above statements imply that people are already aware of curriculum irrelevance although in a modernization paradigm, and that what is needed is a meeting to sort out the shortcomings of the present geography curriculum. The present curriculum could be made more detailed so that it is interpreted the same way by all people who use it. Today, all teachers teach it according to the way examinations are set by the UNEB, implying that they follow the UNEB interpretation. The government could facilitate a meeting of teacher educators, teachers, and the UNEB to make appropriate changes. A manual for the syllabus is suggested, which is a good idea, but relevant topics would also help. The global education framework will make it more critical, transformative and relevant to the needs of all Ugandans.

In contrast, a few student teachers believe that some new useful knowledge will be acquired :

> *Studying things which do not concern us is useful, as such things might happen here or we might visit such areas* (ST (3), 29-6-1995).
>
> *It is bad to study only our society. It is important that we study other countries, since whatever they do affects us, e.g. chemical pollution* (ST (5), 6-7-1995).

One student, *although criticizing the curriculum for being too "theoretical, not deep enough, and outdated information."* conceded that it *"helps us pass examinations and get employment* (ST (5), 6-7-1995).

The course is considered to be too theoretical, but somehow appropriate for future use should students visit such areas or if a similar project is started in Uganda. A minority also consider topics like pollution, with global effects, to be relevant to Uganda. From a transformative paradigm, it can be argued that some of the student teachers do show some sensitivity to the important issue of local relevance. This is not to suggest , however, that a transformative orientation to Geography would always exclude topics on contexts outside the country or even region concerned. However, when external-based topics are considered, relevance implies explaining to students the "development" processes which the North countries have undergone, and how their people as well as others (especially the South or periphery) were involved or affected. This will allow students to relate such knowledge to their own lived experiences and to raise questions if north-led modernization is appropriate and useful to their own national development.

A few students also feel that pedagogy is overemphasized at the expense of acquiring knowledge, as exemplified in the following comment:

> *The courses do not emphasize what we are going to teach, but just the methods of teaching it* (ST (1), 22-6-1995).

Likewise, the majority of lecturers interviewed believe that NTCs should not merely repeat the O-level syllabus. As one strongly argues, the curriculum is irrelevant because it does not widen the academic base of the student teachers:

> *Dull, just repeating, not adding on anythin.... there is no intellectual growth for the students. Intellectually they are not challenged. We are condemning teachers to O-level knowledge, not even emphasizing A-level, but O-level! There should be more academic material on economics, population, politics, etc. We need a more specialized approach; otherwise we are not adding anything and the students feel they know everything, since they are repeating everything they did at the O-level* (L (2), 22-8-1995).

Similarly, one Director felt that it was *"bad if lecturers do not go beyond the O-level syllabus; they should be doing something more* (D (2), 25-10-1995).

In contrast, however, a few lecturers feel that in order to develop teacher competence, the teachers should learn what they are going to teach. For example two of them said:

> *There is a repetition of the O-level syllabus at the NTC. I feel that repetition will make teachers competent* (L (1), 22-8-95).

> *What they get in colleges is relevant and makes them competent because the lecturers who train them do a lot of research* (L (4), 9-8-1995).

Despite these different opinions on the degree to which the NTC curriculum should be linked to the O-level syllabus, there is no doubt that there is a close match between the syllabuses. Indeed, the NTC syllabus document of 1993 clearly states the

> ...rationale for dropping South America, Australia and Monsoon Asia" is that these regions are no longer being taught in secondary schools. The Geography panel members therefore feel that preparing our students to teach South America, Australia and Monsoon Asia is like training a solider on a gun (a weapon) he would never use). Since secondary schools teach syllabus 273 from S.I to S.IV, the...panel ..feel that the NTC regional geography should emphasize the preparation of students so that they effectively teach syllabus 273.

The topics studied in syllabus 273 also stress the modernization paradigm, whether in East Africa, Africa , North America or Europe. They encourage the use and importation of high technology in agriculture such as the use of chemicals, hybrid seeds or livestock and machinery in the intensive agriculture in the Rhine Lands or in plantation agriculture in Africa for export production of grains which goes to North countries for animal consumption. They concentrate on cash crop production for export and not on food production for domestic use. Studies in urbanization do not include the analysis of ghettos and slums and the welfare of poor people. Mining, industrialization and transport are studied in relation to exports, and not in relation to their impact on ecology or the welfare of people working in these economic activities. Services to the poor in terms of roads, medical services and other welfare services are omitted. Questions of environmental destruction and sustainability tend to be neglected. Issues of women, gender and development are not considered as important and, therefore, not mentioned in the teaching of Geography in Uganda. It is pertinent to point out however that a new O-level Geography syllabus is presently being proposed, which will include consideration of human geography themes (e.g. definition of development; bridging the gap between the rich and the poor; environmental conservation). As well, as earlier noted, the National Curriculum Development Centre (1995) has developed a trial curriculum guide for integrating "population and family life" education in high school Geography. Under this theme, not only are issues of environment, health and population emphasized but also women and development concerns. Hence, should these proposed curriculum innovations be implemented, there will be increased opportunities for the NTC Geography syllabus to consider issues and problems more relevant to a transformative paradigm , granted of course that college lecturers and administrators receive appropriate inservice education and skills.

Exemplars of Student Research

In the Geography curriculum, the National Teachers Colleges offers two alternatives for the project requirement . Student teachers either undertake a residential fieldwork assignment or research an individual project. Both colleges in my study do not go on residential field trips. Instead the students select their own individual research topics which are approved by their lecturer. The topics I was able to get access to and read in detail included studies on the Kiige citrus project, Mobuku irrigation scheme, the market in Jinja town, Kakira Sugar works, industrial growth and development in Jinja, land use in a village in Kamuli, rice growing in Eastern Uganda, Kashenyi mixed farm, soil erosion in Gombe, and the Bata shoe industry. For example, in looking at the Kashenyi mixed farm project, the student stated in the introduction that he was analyzing the various sectors of achievement of the farm and how it influenced the neighboring area. He analyzed how modern methods of farming can raise the standards of living for the local people. He defined 'mixed farming' as keeping animals for both milk and beef, and growing crops for cash and food. As well, he discussed factors of location, the influence on neighboring areas and problems encountered by the owner. (Twinamatsiko,1992, pp. 2) Among the objectives is one which stated that "to make sure that I do pass geography as a subject both in fieldwork and in written examinations" (p. 4). In another project study on Industrial Growth and Development in Jinja., the student did his research in a transnational company manufacturing paper, Papco Industry at Kimaka, Jinja. He looked at the factors affecting the location of this industry in Jinja. He interviewed the managers and a few workers for information about raw materials, how they were obtained, and the output and marketing of paper products. The student said, however, that he was denied some information by the owner of the industry.

The above research projects, including those I have not described, almost all did not examine the impact of the projects on the environment. Furthermore, there is a power bias in the methodology and outcomes. The local people are not their concern with women as a group not mentioned at all. The student dealing with the paper industry said that although he saw women in the factory, he did not bother to interview them. He said they were part of the figure of workers given to him by the Manager. The students, however, should be doing a kind of research which is transformative in nature in which human beings are not regarded as objects for the researcher. For example, the poor and landless in the area near Kasenyi were not contacted in the first project. The men operating the machines, the most knowledgeable about paper making in the Papco context were not contacted. The student who worked with Kakira sugar industries never contacted the men who plant, weed and cut the sugar cane. The student who interviewed Kamuli peasants did not contact the women who do the actual cultivation, but only men and government officials. The perceptions and insights of the workers or common people are missing from the reports . What they produced were management and technocratic documents reflecting the limitations of their socialization by a curriculum emphasizing modernization perspectives. Objectives of their projects were to find out locational factors, historical development, input and output in the project, and its role in the economic development of the country. The study on soil erosion was unique in that very few students did anything on the impact of human activities on the environment. Even so, this student concentrated on the impact rather than on the causes of erosion, thereby overlooking the political, economic and cultural factors of environmental destruction.

Alternatively, with regard to such project fieldwork, the student teachers could have received knowledge and skills in research that takes into account realities at the grassroots and among people with less power than elites. For example, recently Nicoll and Edgar (1994) carried out a simple research project entitled "Understanding Development With Ghanaian Teachers." The purpose was to develop a case study that can be used in teaching British children about life beyond the home region. They used thirty Ghanaian geography teachers to participate in the fieldwork focusing on the theme of "children at work in Kumasi, Ghana." By talking to these children and their parents or relatives, analyzing their home environments and both local and external factors affecting this local setting, it is easy to understand development from a bottom-up perspective. This involves discussion on the lifestyles of these children, including both positive and negative aspects. There was discussion on what can be done to improve their lives which brings in issues of government policies at local and national levels. This research, although located in an urban area, is a bottom-up kind of research; it is analyzing the effects of structural violence on the people at the bottom. This kind of research can easily be carried out by student teachers in the NTCs of Uganda.

In my view, this lack of people-centred orientation in the research output of the NTC student teachers can be attributed to dominant tendencies which operate in Ugandan society and which I have experienced throughout my educational, social and professional life. The students are taught and usually believe that the most objective way of looking at things is from the view from the top - the perspective of those with power. The students are socialized quite early that in society the authoritarian pattern predominates in all institutions and work places. The students, therefore, can easily identify with, emulate, and serve those in power while ignoring others. Consequently, the topics selected for research are not related to the common people, are top-down in assumptions, and not likely to benefit the poor but rather the owners of such projects at the top. There is therefore in a transformative paradigm of geography education also a need to foster awareness and skills in alternative, critical methodologies such as participatory action research and feminist theorizing and research .

Textbook Knowledge

A textbook is one particular resource among many which influence the knowledge and understanding of young people as they go through school. Geography has changing factual information; therefore the content in textbooks needs to be monitored and weeded constantly to update the subject matter (Slater 1990). To Muller (1990) a geography textbook should take into account the ideas of peace education, international understanding and ecological relationships. This is possible in countries where research is constantly being done and published to enable textbook writers to update their work. Uganda, having gone through a long period of civil disturbance and economic recession, does not publish her own textbooks. Little research is also taking place, therefore, all textbooks are outdated since it is expensive to import new books. The Ministry of Education and Sports is supposed to buy books for the colleges in all subject areas. Each college receives money in the form of what is called 'block and capitation for all their requirements'. Each student is allocated 550/= per day for his/her maintenance while at college for two months in each term (three terms a year). This money is used for food, water, electricity, overload, renovations, medical care, transport etc. The Directors say after that there is no money to buy books for the library.

But apart from the issue of scarcity of funds, the available textbooks , according to the students and lecturers, do not help them to answer examination questions. The textbooks published by foreign authors and publishers on Africa, East Africa, North America, The Rhine Lands, Australia, China, and South America. (Appendix 11) which are considered essential and which are available, are outdated, and this is the same case with the secondary schools. The students and lecturers say there is only one copy in the library of the textbooks they consider essential, and it is to be shared by over one hundred and eighty students in the college. In an interview with the National Curriculum Development Center Officer in charge of geography, she said the Center welcomes any material written by the public and if assessed as "good", it will be recommended for use in schools. At present she said the Center lacks maps and photographs for use in schools; these are also produced by foreign publishers.

This data on the texts parallel previous research by Arnove (1988), Altbach (1988) and Mazrui's (1980) that there is cultural imperialism in South countries, especially in their education systems. They all affirm that there is a heavy reliance in African universities on foreign texts in the social sciences produced in the U.S.A., Britain or France. As Kelly and Altbach (1988) have noted:

> Third world countries often rely on former colonial powers for educational expertise and technology as well as the production and control of scholarly journals, textbooks and the like. This dependence on industrialized nations for the delineation and production of knowledge (commodified in textbooks) often transfers new roles and values to the recipient country (p. 30).

To Mazrui, Anorve and Altbach, this cultural dependence parallels economic subordination of peripheral countries to metropolitan centers. Dissemination of information is controlled by an infrastructure of research support and publishing houses in the metropolitan centers of Europe and North America. All books in Africa are published in metropolitan languages while eighty to eighty-five percent of the population does not know English or French. Research carried on by some local scholars is published in Western countries because it is prestigious to publish in journals of the center (Arnove, 1988).

More specifically, the textbooks concentrate on economic modernization at the expense of other aspects of life. For example, the textbook on Africa by R. White actually describes how African economies can be changed from a peasant subsistence economy to modern economic activities through plantation agriculture, mining, forestry, modern animal rearing and industrialization. The lives of ordinary African people are not portrayed in this book. Other textbooks written in this manner include:

1. Minns, W.J. *A Geography Of Africa.*
2. Pritchard, M. (1979) *Africa: A study geography for Advance Students.* London:Longman.
3. Young and Lowry (1968) *A Course In World Geography, East Africa. No. 8.* New York: Edward Arnold Press
4. Senior, M. (1979) *Tropical Lands. Human Geography.* Hong Kong: Longman

In these texts, the marginalized and exploitative conditions of workers in industries, plantations, mines and other development projects studied are not reflected. The women who perform most of the agricultural and domestic activities are not recognized. They also avoid the complex problems of tribalism and ethnicity affecting Africa. They tend to promote the industrialized North as role-models for South development, and fail to teach values that would support initiatives towards self-reliant, equitable and sustainable economic, social and cultural development or nation-building.

It is pertinent , however, to note that some Ugandan teachers have also written revision notes with model answers for students preparing for examinations which has alleviated the shortage of books in schools. Although these books have up-to-date data, they imitate the traditional textbooks written by western publishers and, therefore, have the same perspective towards societal and development issues. These books, commonly called pamphlets in Uganda, lack the critical paradigm and have not incorporated new trends in geography. Issues of environment, human rights, women, culture, social and political, and the welfare of people are not dealt with. Exemplars of such privately published revision books include:

1. Kakumirizi and Lugoye, *Human and Physical Geography of Uganda*
2. Webale, *East Africa*
3. Babishangire, *Comprehensive Notes On World Problems And Development*

4. Tumwine Ababo, *Comprehensive Notes On Regional Development of U.C.E. Examinations*
5. Kunya Lubowa, J.I. and Kabiredi, R.S., *A New Revision Geography of North America*

Levels of available reading materials strongly determine the kind of educational experience a nation is able to provide for its children and youth. Nations that are unable to finance an increase in available textbook provisions are likely to forego a critical opportunity to increase levels of learning in their schools. For example, in the two colleges there is a severe shortage of textbooks for both lecturers and students. There is only one reference book per title of essential textbooks to be shared by the two geography lecturers. For the students there is only one or two textbooks to be shared by over one hundred students. As mentioned earlier, the majority of students who are poor cannot afford to buy textbooks. The colleges are able to buy a few copies of books per year and in fact, after interviewing the Directors, one of them decided to release some monies to buy one geography methods textbook. Some students I interviewed said they fish for books from public libraries which are located in towns. Some student teachers living near the well-established richer schools, could easily borrow books from such institutions, provided they are known to the authorities.

In their narratives, both lecturers and students stated their strong reliance on textbook knowledge and feel helpless if the books are not available. One of the lecturers said that there is no way students can use a variety of geography teaching methods without textbooks. In Uganda, where the latest information technology (computer, internet, CD-ROM's, telex, TV and videos) are not yet available to the majority of people, textbooks are still the best sources of knowledge. At present, however, there is little research on how teachers use textbooks, their effect on classroom practice, and the relative importance of textbooks versus other instructional materials in forming students attitudes and in improving the cognitive outcomes of schooling. A member of the geography panel had this view towards the issues of textbooks:

> *There are no textbooks, maps, or photographs, so the teachers teach in isolation. Teachers are too poor to afford a newspaper, textbooks, magazines or even radios. The lecturers in the University and N.T.C.s. have also been less productive in terms of publications* (GP (3), 26-8-1995).

In this regard, one of the Directors said they were assisted by the British Council, which supplied reference books in all subject areas for the library. I was able to look at the library books, and a number of interesting geography books donated to the college by the British Council included the following titles:

1. Bauer, P.T. (1981) *Equality, The Third World And Economic Delusion.* London, Methuen
2. Grove, C. (1984) *Space, Development Theory And Regional Policy.* London, Methuen:
3. Grove, T.A. (1989) *The Changing Geography Of Africa.* Oxford; Oxford University Press.
4. Huckle (1983) *Geography Education: Reflection And Action.* Oxford: Oxford University Press.
5. Taylor, P.J. (1987) *Political Geography, World Economy, Nation State And Locality.* London: Longman.
6. Tivy, J. and O'Hare (1989) *Human Impact On The Ecosystem.* New York.Longman

It is interesting, however, that these additional references were not deemed as useful or relevant by the lecturers and student teachers in the college concerned. Although Bauer's perspective comes from a conservative, modernization approach, and Grove's texts tend to emphasize the physical geography paradigm, the others, especially Huckle, do provide alternative ideas and analysis for a transformative paradigm. However, given the findings in this chapter, it is not surprising that the potential in these other sources of Geography are not being explored to the maximum in Ugandan schools and colleges.

Content Reforms?

In its present structure and form, the NTC Geography curriculum has been seen in this chapter to largely reflect some dominant assumptions and knowledge themes embodied in the modernization and environmental determinism paradigms. Although a minority of research participants show some awareness and sensitivity to limitations of this paradigmatic orientation, their narratives as a whole suggest that lecturers, administrators and student teachers lack the conceptual and analytical tools and knowledge for questioning the modernization paradigm , and for suggesting transformative alternatives.

Nevertheless, it is relevant to note that a few reform possibilities may be available in the near future. For example, the National Teachers Colleges are proposing to integrate in their present geography program themes on population, environment and family life education. They are doing this because the proposed NCDC. O-level syllabus has also integrated those particular themes in the syllabus. The O-level proposed syllabus added in two new objectives to allow for the new themes, although regrettably sexist language remains the norm. These new themes have some potential spaces for bringing in specific issues and problems that are most relevant to a critical understanding of dominant modernization perspectives and transformation alternatives. Nevertheless, the syllabus guidelines already suggest some limitations. For example, "overpopulation" is seen as the cause of environmental degradation and solutions are to be suggested for it, whereas the role of the elite in north and south countries in environmental destruction is not highlighted. A sub-topic on culture is introduced, covering issues of language, staple food stuffs, mainstay beliefs, attitudes and taboos which can encourage Geography teachers to draw on the local realities of their students, referred to earlier in Chapter 2 as private geography, in which the students' previously acquired knowledge is used in teaching. It is in the area of environmental awareness , including both human-made and natural hazards, energy resource use, and ways of saving the environment, that a transformative dimension is clearly added to the syllabus. However, since these new proposals are not yet implemented, it remains to be seen whether Geography educators and teachers will be empowered to explore these new topics in a critical way.

CHAPTER FIVE

ISSUES TOWARDS TRANSFORMATION

Introduction

In the previous chapter, data based on the views of lecturers, student teachers and administrators, as well as documents provided an understanding of the paradigmatic orientation of the NTC Geography program. Especially from their responses to questions about what Geography as a discipline means to them, and their concepts of development, most participants tend to endorse the paradigm of environmental determinism and modernization. However to further explain the possibilities of integrating a transformative paradigm into Geography education in the NTC program, it is important to listen in greater depth to the research participants. This chapter therefore presents and analyzes the views of the lecturers, student teachers and administrators on a range of issues and problems relevant to global education and to a transformative paradigm in Geography, including poverty, hunger and social injustices, the role of traditional knowledge, women in development North - South relationships, population and rural underdevelopment, and environmental sustainability. To what degree and in what ways might they be open to or already aware of transfomative possibilities in Geography? Before drawing on the participants' narratives, however, it is relevant to document the results of the survey questionnaire administered to 120 student teachers in the two colleges. All the 30 questions relate to a range of issues and problems for which the responses give some reflection of paradigmatic orientation (Table 1).

As noted in Chapter 3, the survey questionnaire answered by some 120 student teachers from the sample NTCs was designed to gain some general insights into the opinions and awareness of the students on a range of issues of development, both at global and local levels. These responses not only provided useful information to guide the focus discussions, but as shown in the table below, provide some indication of paradigmatic orientation. According to the way each question is constructed, the "agree" responses and the "disagree" responses reflect alternative paradigms of understanding the issues. Thus it is possible for each respondent to present a profile that includes understandings reflecting a mix of paradigms. The purpose of this survey, however, was not to engage in statistical determination of paradigmatic orientation, but rather provide a descriptive assessment to complement the in-depth qualitative data emphasized in this study.

Table 1: Results of Survey Questionnaire on Local & Global Issues of Development (N = 120 NTC Student Teachers)

	SA (%)	A (%)	D (%)	SD(%)
1. Traditional or indigenous culutural beliefs and practices can contribute to environmental conservation or protection.	33 [27.5]	45 [37.5]	37 [30.8]	5 [4.1]
2. Land redistribution is very important in resolving problems of poverty.	16 [13.3]	45 [37.5]	50 [41.6]	7 [5.8]
3. Women contribute little to the economic development of developing countries.	9 [7.3]	30 [25.0]	55 [45.8]	16[13.3]
4. Street children are the result of overpopulation in the slums.	18 [15.0]	35 [29.0]	60 [50.0]	7 [5.8]
5. Environmental destruction is mainly cause by the ignorance and bad practices of poor peoples.	10 [8.3]	70 [58.3]	30 [25.0]	10 [8.3]
6. The present international trading system is very helpful to the development of poor countries like Uganda.	5 [4.1]	18 [15.0]	50 [41.6]	40[33.3]
7. All fertile land in Uganda should be used to grow cash crops to earn foreign exchange.	10 [8.3]	20 [16.6]	50 [41.6]	37[30.8]
8. Different cultural groups in any society will always conflict with each other	7 [5.8]	60 [50.0]	40 [33.3]	10[8.0]
9. Famine and hunger in most developing countries is the result of failure of rain.	25 [20.8]	45 [37.5]	40 [33.3]	6 [5.0]
10. Military spending should be increased to ensure national security.	4 [3.3]	40 [33.3]	37 [30.8]	16[13.3]

Table 1: Results of Survey Questionnaire on Local & Global Issues of Development (contd.)

	SA (%)	A (%)	D (%)	SD(%)
11. The International Menetary Fund (IMF) is beneficial to developing countries	8 [6.6]	30 [25.0]	45 [37.5]	35[29.0]
12. It is essential to resolve conflicts through nonviolent strategies.	48 [4.0]	40 [33.3]	10 [8.3]	5 [4.1]
13. Overpopulation in developing countries is the main cause of poverty and hunger.	35 [29]	42 [35.0]	15 [12.5]	5 [4.1]
14. The goal of Uganda's national development policies is to attain the same living standards and lifestyle of North Americans.	2 [1.6]	53 [44.0]	52 [43.3]	13[10.8]
15. Nuclear weapons are not manufactured in Uganda and therefore we should not worry about the nuclear arms race.	2 [1.6]	10 [8.3]	28 [23.3	30[2.5]
16. Cultural discrimination is not a problem in Uganda. the best in the world.	0 0	29 [24.0]	28 [23.3	45[37.5]
17. The record of industrialized nations is promoting human rights is	30 [25.0]	45 [37.5	30 [25.0]	15[12.5]
18 The World Bank has contributed positively to the development of poor countries.	25 [20.8]	40 [33.3]	28 [23.3]	15[12.5]
19. The developing countries are primarily responsible for environmental deterioration in the world.	12 [10.0]	30 [25.0]	30 [25.0]	5[4.1]
20. Women and men are treated equitably in Uganda.	11 [9.1]	60 [50]	18 [15.0]	1[0.8]
21. It is essential to use chemical fertilizers and pesticides to increase agricultural production.	3 [2.5]	54 [45.0]	40 [33.3	1[0.8]

Table 1: Results of Survey Questionnaire on Local & Global Issues of Development (contd.)

	SA (%)	A (%)	D (%)	SD(%)
22. Urbanization in Uganda should follow the model of urban growth and development in the advance industrialized societies.	22 [18.3]	31 [25.8]	20 [16.6	7[5.8]
23. Uganda should not encourage the use of the automobile (car) as a means of transportation.	8 [6.6]	40 [33.3]	33 [27.5]	20[16.6]
24. In order to promote national development, Ugandan citizens must develop very competitive and individualistic values and attitudes.	25 [20.8]	51 [42.5]	15 [12.5]	0 0
25. Uganda should immitate the Tennesee Valley Authority multipurpose scheme in order to develop poor areas.	16 [13.3	50 [41.6]	28 [23.3]	4[3.3]
26. Understanding each others religion will promote unity in Uganda.	25 [20.8]	36 [30.0]	27 [22.5]	0 0
27. Uganda should allow foreign corporations to invest without any governmental intervention so that they can help to promote economic development.	20 [16.6]	24 [20.0]	15 [12.5]	10[8.3]
28. Building a second dam on the River Nile will boost the economy of the country.	23 [19.1]	40 [33.3]	38 [31.6]	10[8.3]
29. Rural people in Uganda should be encouraged to plant fast-growing imported trees to replace the slow growing indigenous or native trees.	23 [19.1]	32 [26.6]	30 [25.0]	15[12.5]
30. The issue of women's rights is irrelevant to Ugandan society since it will lead to the loss of traditional culture.	35 [29.1]	35 [29.1]	5 [4.1]	45[37.5]

***KEY : SA = strongly agree; A = agree; D = disagree; SD = strongly disagree**

Overall, a breakdown of paradigmatic tendencies shows that on about 10 issues, a majority of respondents tended to reflect modernization perspectives. For example, drought is strongly seen as a primary cause of hunger and famine, while overpopulation has led to hunger and poverty. Over half of the respondents believed that the World Bank has "contributed positively to the development of poor countries" in contrast to 35 percent who disagreed. A large majority of the students agreed that Ugandans must develop "very competitive and individualistic values and attitudes" in order to promote "national development". In contrast, on some 13 issues, the respondents tended towards a transformative and critical paradigm of understanding. Thus nearly 80 percent of respondents disagreed that the international trading system has been "very helpful" to South country development . Over 70 percent disagreed that all fertile land in Uganda should be devoted to cash crops to earn foreign exchange, and some two thirds saw the value of traditional knowledge in promoting environmental conservation and recognized the contribution of women to development. On seven questions, the proportion of responses were about equal in both paradigms. The percentages in the table do not add up to 100% in some cases because some questions were not answered by the student teachers. Clearly the results of this survey show that despite the content, and as we shall see later in the pedagogy, of the Geography curriculum being primarily in the environmental deterministic and modernization paradigms, many student teachers show awareness of critical and transformative knowledge. This finding provides some encouragement for any effort to transform Geography curriculum away from a dominant modernization paradigm.

Traditional Knowledge

In bringing knowledge, values and attitudes supportive of modernization and westernization to the South, modern educational systems have tended to displace and diminish the validity of traditional or indigenous knowledge and culture (Altbach & Kelly, 1978). From a transformative paradigm and global education perspective, however, this depreciation of traditional knowledge leads to a loss of accumulated wisdom useful to understanding local realities and resolving community problems. I asked the students about their traditional culture and whether they saw any value in it. Half of the students commented on the culture and practices of Ugandan indigenous peoples such as the Banyankore as follows:

> *The Nkore culture of hunting animals leads to environment degradation* (ST (4), 5-6-1995.

> *Pastoral groups like the Hima have a destructive culture of cutting trees and bush burning, leading to the erosion of top soil. Burning grass is more dangerous than the use of tractors. Heat loosens particles, making it easier for winds to remove soil* (ST (5), 6-7-1995).

A majority of the students at Kakoba NTC. are Banyankore. The Nkore tribe is made up of two groups: the Hima who are pastoralists and the Bairu who are agriculturalists. The Hima, until recently, have been pure nomads who move with large herds of cattle looking for grass and water. In the process they hunt wild animals for food, cut trees and burn bushes for more grass to grow for their animals. The students further responded that :

> *...the culture of growing crops by scattering makes yields poor, since plants compete for light and food* (ST (2), 27-6-1995).

Clearly, most of the student teachers hold a negative view of indigenous peoples' agricultural practices in contrast to modernization strategies. They reflect little awareness of the reality that in Uganda, most of the people who use tractors are rich farmers who grow cash crops. The Hima pastoralists do not actually cut trees at the scale of a farmer using a tractor. Furthermore, traditionally crops are not grown in lines as in modern agriculture. Beans, maize, and millet are planted by scattering, which includes intercropping. This method of planting is the best way of fighting erosion in Uganda. Only a few of the students believe that indigenous agricultural practices are not as destructive as tractors.

> *Tractors are more destructive since farmers have to cut trees to enable tractors to move* (ST (5), 6-7-1995).

Similarly, a majority of the students believe traditional knowledge and culture of the Karamojong of Northeast Uganda is the cause of calamities and disadvantages in that region:

> *The way of living of Karamojong destroys the environment. If the Karamojong are destroying the environment, they will affect other parts as well. Money spent on Karamojong to relieve famine could be spent on other people* (ST (4), 5-6-1995).
>
> *The Karamojong remained there because they couldn't leave their cattle. Being hostile they couldn't get anything, and there are no roads going to Karamoja. Most roads lead to developing areas of Buganda, copper in the west, and tobacco of west Nile* (ST (3), 29-6-1995).

These statements come from students who have had little contact with the Karamojong in Northeast Uganda and what they "know" about the people is derived from rumours, gossip, and textbooks as well. They have little awareness that keeping large herds of animals is another form of food security amongst the Karamoja (who live in a semi-arid environment). It is rather discriminatory and against human rights for the students to suggest that money spent on starving people should be spent elsewhere. The students are not aware that those tribes who collaborated with the European colonizers and industrialists have also suffered from domination and exploitation. The students in Jinja and Iganga know the Karamojong generally because they settled in those two towns after the severe famine of 1980. They came as small children but are now men, some with wives and big businesses, and have completely given up or lost their traditional pastoral way of life.

It is pertinent to note that the student teachers confessed that whatever they know about the Karamojong is from books:

> *What we are telling you about the Karamojong culture is the truth because we read it in books. By faith we believe it is the truth. To prove that it is the truth, we have written it in examinations and we are always marked correct!* (ST (4), 5-7-1995).

Many textbooks however are written by biased scholars who do not recognize traditional culture and knowledge in their work. For example, writers like White (1985), Senior (1986), Young and Lowry (1969), when writing about geography of Africa and East Africa, do not mention the potential of African traditional knowledge and culture to foster the total development of a child or a country. Secondly, the Karamojong were rendered destitute because of the historical colonial legacies which still affect them, such as colonial borders and policies of divide and rule. In response, the Karamojong have therefore decided to resist the modernization strategies of colonial and post-colonial governments that have shown little sensitivity to their indigenous needs. Passive resistance was labeled unprogressive and primitive. Descriptions of "primitive" and "destructive culture" hides the true story of how the Karamojong were affected by colonial policies.

This problem could easily be solved if geography textbooks or literature were written by scholars who know more deeply the cultures of various tribes. Such scholars would also write on a critical interpretation of African history and the effects of colonization. This literature could then be distributed to schools so that the forty tribes in Uganda can learn about each others' history, culture and social organization. It would be better if the few Karamojong who are educated could become teachers and teach in different parts of the country to show others that they are not as they are described in western textbooks.

The data also do not suggest that all sense of identity with traditional knowledge and culture has been lost. As earlier noted, the survey found that a majority of student teachers who answered the questionnaire were aware of the environmental wisdom found in indigenous knowledge. In the interviews, a number of student teachers feel that their culture is good, but lamented that most people are no longer practicing it. The majority of students in the study are from southern Uganda except for three from the north. The responses in this study are made by students from the following tribes: Basoga, Langi, Baganda, Bakiga, Banyankore, and Bakonjo. The participants, therefore, tended to narrate what they know about their own tribal traditional knowledge. As a few noted:

> *In Busoga there is no fighting on a rock occupied by water that is in the lake* (ST (3), 29-6-1995).
>
> *In my culture (Kasese) the Bakonjo leave land uncultivated for ancestors. There is no settlement and no grazing; only traditional doctors could use it for grazing. This kind of land acts as a water catchment area and soil erosion is controlled* (ST (1), 22-6-1995).

An example of the bias in modern knowledge has also been to consider traditional healers as "witch doctors". In traditional communities, however, these traditional healers are powerful psychologists and herbalists whose wisdom has worked for centuries but for a long time were depreciated by foreigners. Students applied their geographical knowledge to sacred areas (not ordinarily utilized except by traditional healers) that conserved the environment by attracting rain. These were places where the Gods (and herbs for healing) could be found residing in unique big trees, animals, rocks, lakes and rivers. No one would destroy these places as they believed the Gods could be consulted by the healers. Such stories in Geography classes could be kept alive as a valuable source of traditional knowledge useful for conserving the environment.

Furthermore, in traditional communities, agro-forestry was encouraged and practiced but this was destroyed by modernization. As one student teacher was aware:

> *Traditionally beans were planted in banana plantations; hoes were not used and there was no soil erosion. Trees were planted in banana plantations as windbreaks; their leaves added manure and acted as rain-catchment areas* (ST (5), 6-7-1995).

Among the southern tribes which feed on matoke (green bananas), it was not necessary to weed and fertilize the plantations by using modern technology. The plantations were annually pruned and mulched in addition to manuring the soil, which prevented weeds from growing. Beans and peas were planted between the banana plants which provided nitrogen to the soil. Trees were planted to act as wind breakers; normally this was a special fig tree used to make backcloth. The leaves of this fig tree are very nutritious and palatable to goats and sheep - the common domestic animals of the agricultural Bantu. The government is now reviving agro-forestry after recognizing the failure of the modern practices which tended to discourage intercropping.

Likewise, a few student teachers lamented the way in which the environment has been destroyed by modern culture and society:

> *Man respected forests and bush because he knew he would go there for food, fruits and animals. Today there is a high demand for firewood, charcoal, brick making and yet men are cutting trees. Modern culture is highly mechanical so people have to divert from traditional ways* (ST (5), 6-7-1995).
>
> *Traditional culture respected the environment. People had not learned how to cultivate vast amounts of land; what they cultivated had an insignificant effect on the environment. Land was even given time to regenerate* (ST (4), 5-6-1995).
>
> *Man highly regarded water and there was limited industrialization. Man sometimes conserved water, and depended on it for fish and domestic water* (ST (1), 24-6-1995).

These students show concern over the rate that trees are cut, influencing the shortage of domestic water which is also used for breeding fish. Before the introduction of cash crops there was no need to clear large pieces of land for cultivation except for food. Urbanization has also led to a high demand for food and fuel (in the form of charcoal) and this, in addition to cash crop production, meant clearing more and more land to erosion. With relative peace in Uganda today, more people are putting up permanent brick houses both in urban and rural areas, making it necessary to cut trees for firing bricks. The effect of the massive destruction of trees, with little effort being made to replenish, is shortage of water.

In contrast, there are some participants who definitely welcomed the demise of traditional culture and its replacement by modernization phenomena. As one strongly argued:

> *Our culture is being penetrated by western culture through TV, video and books, for example, as well as dressing, face makeup, and spectacles. I admire these western styles but my mother would despise them. Culture is changing. This dynamism is great now; there is great mobility and the world has shrunk. Nature dictates a revolution, i.e. technology is bringing in changes. We can preserve our culture in the museum without making our women put on long sweeping dresses.....I am advocating for universal culture in Uganda. There are some cultures that are absolute (bad) so they should be scrapped. Others are good like Baganda and Nkore women's dresses. In fact, the Ministry of Culture is useless and should be scrapped. Do they want people to dress up in Stone Age styles? Culture which prevents women eating meat should also be scrapped* (L (4), 9-8-1995).

Some teachers and officials from the Ministry of Education also believe that culture is an obstacle to modernization as evident in the following statement:

> *Treat culture as the greatest problem as it makes people resist change to modernization; with education, however, changes can occur* (GP (4), 16-8-1995).

But this view was also challenged among other students, reflected in statements such as:

> *Whites have a desire to destroy African culture and impose on Africans the western culture so that they can rule us. Western culture despised the traditional culture* (ST (4), 5-7-1995).

The first group of responses is evidently oriented towards the modernization paradigm of development. It advocates copying the western way of life without considering integration with the traditional culture which should be preserved in the museums. But there is a contradiction in the lecturer's response. The lecturer claims that: "traditional sweeping dresses" should not be worn but "Baganda and Nkore women's' dresses" should be preserved. It is important to point out that traditional dresses in these two tribes are long and sweeping. The universal culture that the respondent was referring to is the idea that people all over the world should wear the same fashion or dress style instead of the traditional dresses like the Busuti of Uganda. The Ministry of Gender and Culture is not as useless as some participant implied as it is promoting a degree of intercultural understanding between various tribal groups to put on shows, with dances, fashion, and food. From a global education perspective, it is important of course that intercultural understanding is deepened beyond the 4Ds (dance, dress, diet, dialect) (Toh, 1993).

Another officer believes some aspects of traditional culture are not good for women in some tribes:

> *We have cultures in Uganda detrimental to development. In Acholi, women do not eat goats' meat, and most do not eat chicken either. Therefore there is no meat in women's diet in northern and eastern Uganda* (UO (1), 29-8-1995).

As later discussed in detail, this kind of response reflects a superficial understanding of the interactions between modernization and traditional culture and society. The issues of women and malnutrition are brought up without realizing that modern "development" tended to disregard domestic food production which is essentially women's work. Women had access to other sources of protein like beans, peas, groundnuts, game meat, fish which were plentiful before but becoming scarcer with increased modernization, urbanization, and growing cash crops for export. Although women had no access to chicken and goats meat, they did not suffer from malnutrition as they do today. Another officer however had a different view about culture:

> *Culture is very important because youths are going astray, they have no culture. Cultural tolerance depends on the orientation of a child's upbringing. Some are taught that anything outside their culture is bad. We should emphasize unity in diversity* (GP (3), 7-8-1995).

The above response is critical of conventional modernization which leads youths to frustration and the resulting drugs, crime and even violence, especially in urban areas. It also recognizes the importance of family and schools in teaching children about different cultures, tolerance and love for others.

From the range of responses documented above, it is seen that there is much valuable local knowledge about Ugandan culture which can be effectively utilized to teach about development issues in classrooms. Among the student teachers interviewed, while a majority tended to show little awareness of such knowledge, it is interesting that at least a few remain sensitive to the wisdom of traditional culture. Development policies can build upon local knowledge, skills and resources to promote a sustainable development process. This would generate full participation of the people in defining and addressing their own needs, instead of using models with short term solutions derived from external perspectives inappropriate to the local context. Most development plans, in fact, bypass rural areas where 80 percent of the population live. For the people who have been socialized in this kind of development ideology, it is difficult to realize the importance of traditional culture in development. The West makes people believe that their poverty is due to their traditional culture which is primitive. Allahar (1989) comments:

> They see underdevelopment as issuing from an outmoded, traditional, defective value structure that can and must be changed. Once people who live in the underdeveloped countries accept this definition of the situation...they will mount programs of social, political, and modernization patterned along lines suggested by the developed countries. They will be firmly committed to the acquisition of those "modern" values and attitudes that promise escape from poverty and misery (p. 80).

National Teachers Colleges admit young intelligent students who are capable of doing research in traditional cultures in their own homes or in the area outside the college fence. The lecturers and students need to expand their knowledge and research skills by learning more about the traditional culture of Ugandan peoples. By understanding people's ways of life it becomes easy to formulate policies and guide policy makers. Geography, as an applied discipline, can utilize such knowledge for the development of programs implemented in both rural and urban areas that can respond to the basic needs of the poor majorities, including indigenous communities.

Realities of Poverty

As in other South regions, a majority of the people in Uganda are very poor and live below the poverty line. Hunger, sometimes expressed in famine, is a recurrent phenomenon and explanations given are normally symptomatic and not root causes. In the survey findings as earlier mentioned (Table 1), the 120 student teacher respondents shared a range of paradigmatic orientations across many specific issues. During the interviews, the research participants gave statements such as:

> *Lack of technology and government policy may also contribute to poverty, famine and hunger* (ST (1), 24-6-95).
>
> *Causes of hunger are wars, illiteracy, overpopulation, poor soils, lack of agricultural equipment and traditional beliefs* (L (3), 9-8-1995).
>
> *Causes of hunger are natural disasters like floods, diseases, drought and a lack of storage in the case of Uganda* (GP (4), 16-8-1995).
>
> *"In Uganda, there is no good internal marketing system. The government imports food for famine stricken areas whereas food that is available in other areas is rotting. Another cause of hunger is political instability* (UO (1), 29-8-1995).
>
> *In Iganga, people rent land for cultivation. Those without money cannot rent, so there is less production. If these people had money to purchase land, they would carry out large scale production* (ST (1), 24-6-1995).
>
> *In Kigezi, part of Fort Portal, there are too many people yet in Bunyoro and Kiboga land is idle* (ST (4), 5-7-1995).

> *Some re-trenched people have nowhere to go, so if land is redistributed, they will get somewhere to stay* (ST (5), 6-7-1995).
>
> *In Kaliro the area is vacant and if farmers were given tractors, they would cultivate more. If lands of absentee landlords were redistributed to peasants, they could overcome poverty* (ST (2), 27-6-1995).

The participants mention drought, wars and shortage of land for some people as the main causes of hunger. They also believe that with proper technology the environment can be tamed to produce food like in Egypt. These participants believe that other factors such as illiteracy, overpopulation, poor soils, inadequate marketing and traditional beliefs also lead to hunger. Most of these kinds of explanations for hunger tend to reflect a modernization paradigm of development, since issues of structural violence and injustices within and between nations are not emphasized.

However, in the case of the issue of landlessness, some of the student teachers seem aware of the role of rural inequalities. The students who stress the issue of landless people are mainly from the districts of Iganga, Kabale and Rukungiri. Although peasant farmers have no money to buy tractors, the students hold the belief that in Kaliro, tractors should be given to farmers to cultivate the large vacant land. Although people in Uganda move to towns, they still remain attached to their land in the villages. The rich, in fact, do accumulate land in the countryside as they get more money (Mamdani, 1987). This is being done at the expense of the poor people who sell their land out of desperation caused by poverty. There are areas with high population densities like Kigezi and Bugisu as well as Iganga, where the landless find it difficult to survive. Land becomes an issue when those with some (which may be idle) do not want to part with it, and yet there are people starving because they have no land on which to grow food.

Natural disasters are often also blamed for poverty and hunger, as reflected in the following explanation:

> *Heavy rain also destroys crops and man cannot control it. In the Sahel, it is prolonged drought; in Ethiopia it is wars and drought; in Sudan it is wars and drought; and in India it is overpopulation and a lack of education* (L (2), 22-8-1995).

It is true that armies can aggravate hunger by requisitioning grain and other food sources. As well, militarized conflicts often result in the destruction of houses, crops, food stores, livestock, roads, and bridges thereby disrupting trade in food. Famine can deliberately be used as an instrument of war (Waal, 1993). But these cannot be the root cause of poverty, famine and hunger in South countries . Hunger in most South countries is caused by policies of structural violence, including excessive production of cash crops, high cost of inputs, importing luxury elite goods, arms purchase, urban bias in investment, neglect of basic food production and unequal North-South relationships (Hayter, 1981; George, 1976).

Some participants do show awareness of the relationships between environmental destruction and poverty and hunger, as seen in the following statement:

> *The environment is breaking, rivers are drying, salt is developing in irrigated land, the climate is changing, agricultural land is getting exhausted, soils are eroded, and more mouths to feed all are causes of hunger. Diseases like A.I.D.S. kill strong people who would be cultivating.....Western people consume too much: three quarters of the world's food. But their consumption has no connection with famine in Africa. Maybe the connection is that instability in Africa is caused by northern countries so that they can sell their manufactured goods. If there is fighting, there is no farming, diseases, etc. We call upon them to provide experts, etc. Produce for export is another trick of the west; they do not want us to process these products. Instead they want us to export it to Europe where they process it and return it later* (L (4), 9-8-1995).

Here, the participant's concern is over environmental degradation in irrigated lands and yet there are more mouths to feed. He recognizes the fact that the west consumes too much but surprisingly he does not connect or relate it to famine in Africa. Ugandans should be made aware that rich countries consume almost three-quarters of all the food produced. The average North American consumes 2888 pounds of grain yearly, mostly in the form of meat, milk, eggs and alcoholic beverages. In the U.S.A .almost half of all harvested cropland is sown in feed crops and animals eat about four-fifths of the grain. Still, one finds that 36 of the world's 40 most impoverished countries actually export food to the U.S.A. These exports do not generally go to feed the needy, but rather the relatively affluent who have an effective demand. The seriously malnourished, debt-ridden South countries sometimes have to divert fish from their starving children to export it to the affluent to feed their cats (Kline, 1993). In some countries, forests on hillsides have been cleared to grow cash crops to export to North countries.

In contrast, other participants have tended to blame the victims of this structural violence.

> *Poverty, laziness of slum dwellers and natural hazards lead to poverty. Since there are no gardens in slums, people are affected by famine all the time, leading children to turn to the streets* (ST (1), 24-6-1995).

> *Children decide themselves to leave home, though some are actually orphans. A breakdown of traditions is due to economic conditions, as long ago relatives used to look after these children. Karamojong children are a result of war, insecurity and political problems. They are in a foreign environment so an alternative for them is to go begging* (GP (2), 3-8-1995).
>
> *These are children of irresponsible parents; the current epidemic of A.I.D.S. is another cause* (ST (2), 27-6-1995).
>
> *I suffered from child abuse myself. Street children are a result of child abuse. It may be due to harsh parents, stepmothers or civil wars; all these children end up on streets* (L (4), 9-8-1995).
>
> *Governments may be unable to cater for famine stricken areas, leading children to move to towns, e.g. the Karamojong in 1981-82* (ST (1), 24-6-1995).

These participants point out that it is the wish of the children to move to towns. They believe some are true orphans with no one to care for them, some come from broken homes, and others are undisciplined, homeless and dangerous children who turn to the streets and commit crimes. The Karamojong children are again brought up, and this time the lecturers and student teachers believe they are a result of wars, insecurity and political problems. They do not question why such famines cannot be prevented in such famine-prone areas, nor how the Karamojong dealt with periods of famine before colonial days. The participants believe that overpopulation (leading to the failure to care for and educate children) leads families to towns. They point out that injustice and crime makes children run to towns but they do not explain why these children commit crimes once they are there. They do not question causes of hunger in the urban slums or how slums develop in the first place.

In a transformation paradigm of geography, analysis would be made of the connections between urban and rural poverty. All rural areas of Uganda are predominantly populated by peasant farmers of whom half are illiterate, especially women. Unemployment is high. Rural areas are poorly serviced in terms of economic and social services such as roads, health centres, good schools, agricultural and veterinary officers, doctors, teachers, etc. Except for a few coffee and cotton factories in rural areas, all industries are located in large towns. The most common modern technology in rural areas is bicycle and hoes, which are scarce even in some areas. In fact, hoes were traditionally manufactured before modern implements were introduced. The urban areas, on the other hand, have almost all the modern amenities such as schools with teaching materials and good teachers, medical centres with a fair number of medical personnel, good roads, better housing, and many other amenities. Unemployment in terms of formal jobs in government offices and factories may not be available for everybody, but there are better opportunities for self-employment. Hence, under these rural-urban disparities, there is a continual flow of rural to urban migration of the poor. Rural areas have been neglected to the point that there are neither roads nor other social services that would attract young people to go back (O'Connor; 1988). A few participants, however, believe that people would still move to towns even if there was land in rural areas:

> *Insecurity of jobs in rural areas makes people move to towns. These people believe jobs are only found in towns, and if they are sacked from jobs, their children end up on the streets* (ST (1), 24-6-1995).
>
> *People move to towns because they hate cultivation. They get low prices for their crop making. Cultivation is a gambling job since drought and diseases also can lead to crop failure thereby discouraging the people. They want jobs with security* (ST (4), 5-6-1995).

Unreliability of cultivation by losses due to natural disasters and the fluctuating prices of crops frustrates farmers. The participants reflect here critical awareness when they mention that jobs with security are only found in urban areas. They are critical of the low prices given to farmers and the plight of the unemployed and their children on the streets.

The question of paradigms in explaining rural underdevelopment and of suggestion strategies to resolve the problems is also reflected in the topic on land reform. After a lengthy discussion, some students suggested that land redistribution is possible and could solve some problems of poverty but others opposed it:

> *People who receive it must use it to its maximum. If it is given to people who do not utilize it, it will not solve the problems of poverty* (ST (4), 5-6-1995).
>
> *Some people are so ignorant that even if they were given land they would not do anything with it. Some people lack capital, therefore, will not be able to use it. They need money to buy tractors* (ST(5), 6-7-1995).

These students are not aware that peasant farmers have proved themselves willing to work hard and sacrifice their energy and time when they know that they will gain from it. This has been successfully demonstrated by , for example, peasant farmers of Zimbabwe (Kabedde, 1990). In Uganda this will mean that in addition to government assistance, a better rural road system is necessary to enable vehicles to reach the peasant farmers in remote areas. Land redistribution in favour of the poorest of the poor is possible but the problem is that the very people who influence policy are the owners of these chunks of vacant land previously referred to. According to the recently approved Constitution of Uganda (1995), the lawful bonafide occupants of Mailo land, freehold or leasehold land will enjoy security of occupancy on the land (Article 8). This will be done by regulating the relationship between the lawful or bonafide occupants of land and the registered owners of that land, and also by providing the acquisition of registerable interest in the land by the occupant (Article 9). In Uganda land is very important since most people are culturally attached to their land, especially if it contains the burial places of their ancestors. Even if the land issue is taken to parliament the owners of the land, without conscientization, may not give it up as the students indicated. The issue of compensation to landowners was brought up so that peasants can buy such land from the government. Some still responded:

> *Compensation may lead to landowners give up some of the land* (ST (4), 5-7-1995).
>
> *This might lead to land fragmentation and a reduction in production* (ST (2), 27-6-1995).

From the experience of some countries who have initiated land reform, compensation as a policy may not work. Once the landowners know that the government will give money, the price of land will rise so much that no one will be compensated. If, however, the peasants negotiate with the landowner to use the land rent-free, and then later to sell some pieces of land to such users, the prices might be more reasonable for peasants. A minority however said:

> *If land is redistributed it will not help, but we should promote specialization. Specialization leads to high production* (ST (2), 27-6-1995).

One student in response said:

> *In Uganda specialization is still primitive, they do not aim at maximum production* (ST (2), 27-6-1995).

Specialization would still mean that few people would own land and employ only a few people or use tractors. The majority would remain unemployed and landless. Specialization also leads to a monoculture which in turn may have bad consequences such as pests which may become resistant to pesticides. Cocoa production in Ghana and cotton production in the Inland South of the U.S.A. are good examples (Grier, 1987).

The issue of foreign intervention in rural development was brought up by a number of respondents, including one a lecturer who argued that "it is unfair" for "foreigners to come in to take land""(L (3), 9-8-1995). He was concerned about people's lands which, at times, are given to foreigners. Foreigners owning large transnational companies are given land to grow crops for export whereas the poor citizens are never considered. In order to increase agricultural productivity to meet the needs of an expanding population, a complete restructuring of rural societies through land reform is essential. Some participants are aware that control by transnational corporations in agriculture and industry and trade robs the people of their ability to feed themselves and their families. Transnationals concentrate on cash crop or other manufactured production at the expense of food production.

In the discussions on issues of poverty and hunger, the nature of the education system was also raised as a cause.

> *The nature of education is not job creative, but is purely academic. Once sacked from a job, you cannot get any other job easily. Children of such people end up on the streets* (ST (5), 6-7-1995).

The students also pointed out that the kind of education offered is too academic and does not encourage students to go back to rural areas. Even teachers and other professionals prefer working in towns because they are taught that rural areas and poor people have nothing to offer. The effect of modernization policies is that rural areas remain impoverished, forcing people to look for jobs in urban areas. A few students even blamed women for the situation:

> *Unemployment for ladies makes them end up being prostitutes, and later, have unwanted children who turn to the streets* (ST (2), 27-6-1995).

In Uganda, abortion is illegal and yet most women have no access to family planning information or facilities. Secondly, women's fertility is still controlled by their husbands in most cases. The participants blame women for producing these street children without considering the fact that the fathers should also take responsibility. The lack of access to productive resources such as land and well-paying jobs makes the conditions of women difficult. Most women are illiterate and the few educated have little access to decision-making positions in government.

The narratives as well as questionnaire data show therefore that the research participants, especially the student teachers, have a mixture of paradigms in their understanding of poverty and hunger. Their exposure to the Geography program and other educational experiences reflect in some cases a strong tendency towards the modernization paradigm. A number however show awareness of critical issues on the topic. Some would agree with global and transformative educators that an economic system which puts first priority on increasing the consumption of commercial goods and services undermines the conditions that promote a cohesive community and high quality of life. There is economic growth as indicated by the GNP. but no cooperation, sharing, interaction, mutual responsibility and community feeling. As Trainer (1989) has argued:

> ...an economic system which obliges even the most affluent and wasteful nations to plunge on in an endless struggle for more and more of the globe's dwindling resource supplies must be seen as the prime cause of international conflict and the increasing risk of nuclear war (p. 14).

There is a need to conscientize the North and the South to reduce their overall consumption levels so that other people can also have something to eat. Agricultural research should focus on indigenous staple food crops, particularly drought resistant crops like maize, sorghum, millet, legumes, and root tubers, on which little research has been done (Kabedde, 1990). If developed, such crops could help African people fight famine and hunger.

What is needed are small scale projects that can reach a greater number of the peasantry. Rural development programs rarely include elements that restore and preserve environmental resources like soils, forests, grasslands, water and wildlife habitats. Chambers (1983) is very critical of modern research which ignores the rural areas and traditional knowledge:

> In rural development, the centre-periphery biases of outsiders knowledge are reflected in the concentration of research, publication, training and extension on what is exotic rather than indigenous, mechanical rather than human, chemical rather that organic, and marketed rather than consumed. It is reinforced by other biases towards what concerns men rather than the women and dirty, the rich rather than the poor (p. 77).

These projects could include an element of research to find out the capabilities and limitations of each type of land for purposes of adopting good conservation and management measures. Chambers also argues that it is only local people who know the micro-environment which they use carefully for environmental sustainability. Donor and recipient governments should restructure aid programs to benefit the agrarian sector, with a particular emphasis on food production and environmental restoration.

In Uganda, organizations have been set up to cater to the ever increasing number of street children. Reverend Ssempangi set up community centres in large towns where such children are collected and given some skills. This organization, for example, helped many Karamojong children in Iganga and Jinja. The Uganda Women's Effort to Save Orphans (UWESO) was set up by Mrs. Janet Museveni to help orphans left behind by wars and AIDS, and this is operating in almost all parts of Uganda. A German organization called

SOS has set up centres at Kakiri, near Kampala, for orphans. All these organizations, with the help of foreign donors and the support of the Ugandan government, are doing much to provide a home and education for homeless children. However, as is often warned in global education and radical geography, there is a need for such activities to avoid a pity syndrome and to stress instead solidarity (Toh, 1987).

In addition to the effort put in by the above NGOs, elites in the Ugandan government have to be made aware that unequal distribution of resources, mis-allocation of resources, gender biases, and neglect of youths and children may be the root causes of poverty and street children. Rural areas have to be developed with investment in peasant agriculture, including indigenous animal husbandry, better rural communication systems, and social amenities such as schools, and health centres. Cooperative movements and the political participation of all people must be encouraged, with the purpose of alleviating poverty. Street children have the potential to work for themselves and their skills must be developed.

The curriculum can change so that students are job creators in rural and urban areas instead of waiting for them in towns. Geography as an applied subject would be looking at issues of unequal distribution of wealth, the impact of development policies on the poor in slums and rural areas and other forms of structural violence.

Women in Development

Although women are half the world's population, yet they are still often not recognized in development. Under the modernization paradigm, the vital role of women in domestic production and reproduction without which other modern economic activities could not have been sustained is not recognized. Women are not included in the geography curriculum and yet they are an essential part of humanity studied in the subject. In asking participants' for their views on women and development, a few students responded as follows:

> *Women do most of the agricultural activities, but they do not own land. Women cannot be used in research as respondents because they have fear, are shy and do not answer questions. There are very few women who are brave; those who are brave are brave in an abnormal way and are aggressive* (ST (2), 27-6-1995).

> *Tractors may not be of any use to the woman since plots cultivated are small in some areas. Secondly, they are expensive, and women do not have capital to purchase or hire them* (ST (2), 27-6-1995).

The student acknowledges the fact that women do not own property but is also biased that women cannot be included in research as participants. Women are expected to deal with domestic work but are regarded as unreliable at other kinds of work. The inferior position of women in society makes this student teacher believe that women are not capable of providing reliable data for research purposes. In reality, most Ugandan women in villages are normally given only small portions of land which do not satisfy their needs. Those women who move to towns may find it difficult to move back to the villages if they have a daily income which they control in urban areas. Most women in urban areas who are independent would rather stay in the urban areas because in villages, they may have no land, social services are scarce, and transportation to market crops is poor.

On women's contributions to productive activities in development, most participants however are aware of gender inequity:

> *Men in Bushenyi are gossips and they do not dig. Men are lazy today because they know women are working. They only drain women, and one wonders who gave them the authority to drain women?* (ST (5), 6-7-1995).
>
> *"In Kasese, work on cotton and coffee gardens is done by women, although money will be taken by their husbands.* (ST (1), 24-6-1995).
>
> *In Busiki (Iganga District) men take women in rice gardens; women are beaten if they refuse. After harvesting, the man spends all the money alone. They use the money from rice to buy more women, and do not give much for home use.* (ST (1), 24-6-1995).
>
> *Women fetch water, cook, and cultivate food. They produce all the food we see being sold in towns like sweet potatoes, cassava, yams, etc. while their men are getting drunk in village drinking clubs. Women feed the population and save governments buying food outside.* (ST (2), 27-6-1995).
>
> *Women contribute a lot to agriculture and animal husbandry, but their role is taken for granted rather than ignored* (GP. (2), 3-8-1995).
>
> *Women are engaged in the sugar cane outgrower schemes, Katwe salt making project, and tea plantations of Kyamuhunga.* (ST (5), 6-7-1995).
>
> *Women contribute equally since they grow crops while men are mining or working in factories.* (ST (4), 5-7-1995).
>
> *Women, once equipped with necessary gadgets, will contribute to the development of industries.* (ST (4), 5-7-1995).

Women in such circumstances as described above are marginalized since they provide labour and services which benefit the lives of their husbands, receiving in turn violence from men. Women in cotton and rice fields are used to grow cash crops at the expense of food production. In Busiki county, Nabuguzi (1992) is in agreement with the students, and describes in detail how women are intensively exploited by their husbands in the production of rice. From a transformative paradigm of Geography, research and studies should concentrate on processes that produce women's subordinate positions. A study of the social and spatial relationships that take place within homes and buildings should be included in geographical education.

Many of the student teachers are also critical of the lack of women's participation in decision making in Ugandan society:

> *They contribute indirectly, but are always put in a backdoor position. Men do not allow women to say anything in public. Although they advise politicians and administrators at home, their husbands will not acknowledge this in public.* (ST (3), 29-6-1995).
>
> *If you listen to CA debates, women contribute much.* (ST (4), 5-6-1995).
>
> *Women are more loyal and sincere about what they say, while the husbands are always idle or enjoying themselves in clubs.* (ST (1), 24-6-1995).

Women in Uganda have recently become active in politics, especially in the Resistance Movement Committees, showing their leadership and organizational potential and abilities. Traditionally, women in most Ugandan societies are supposed to be seen and not heard, and this makes women reluctant to go out in public. In order to remain in control, the men ridicule women who try to venture out into public life, especially in politics. A number of students believe that women are more committed to their work in homes and likely to invest more in their households than the men. The students also point out that women educate children, providing them with morals and societal cultures as well as the skills necessary for adult life in that particular environment. Here the participants are in the critical paradigm when they recognize the vital contribution of women in society.

When women have greater access to and control of resources, they are more likely to invest in the welfare of the family with direct improvements in child care and nutrition. NTC. students definitely agree with the above statement, and development organizations for women should be encouraged in Bushenyi and the rest of Uganda where men have turned into gossipers instead of working for the family. But, as reflected in the students' responses, there is a need to raise men's awareness so that women's economic efforts are not sabotaged just because they do not own land. A few male students believe that women actually do not contribute much to the development of the country, such as in industry as reflected in the following statements:

> *Women provide little labour in industry; they are used in less tiresome positions, e.g. women are sorting coffee and men are lifting heavy sacks* (ST (5), 6-7-1995).
>
> *Children of single mothers are not as intellectually and physically fit as those brought up with the help of a man.* (ST (4), 5-7-1995).

Here women are regarded as weak, vulnerable and, therefore, contributing less in industries where heavy weight lifting is involved. Women are seen by these male students as having little intelligence and being an inferior species with little authority to bring up children who are intellectually and physically fit. One student however added on:

> *In reproduction, conceiving is concurrently done by both man and woman.* (ST (4), 5-7-1995).

He believes that a man plants his seed in a woman which later he reaps when it is ready. He does not see a woman doing much to this baby inside and outside her body. Later they all agreed that:

> *The nine months are left to the woman who later looks after the child's health, nutrition and education* (ST (4), 5-7-1995).

The same male student said:

> *According to our culture (Nkore) women are regarded as nothing, that is why their education is not regarded useful. In fact at the age of 18 years they are supposed to marry* (ST (4), 5-7-1995).
>
> *Women cannot be used in research as respondents because they have fear, are shy and do not answer questions. There are very few women who are brave; those who are brave are brave in an abnormal way and are aggressive* (ST (2), 27-6-1995).

Other participants see a woman's worth as that of the reproduction of children and wealth:

> *Children are produced for security purposes, especially for women, since they bring in money in old age and many girls will bring in many cows! Men want fertile women* (ST (3), 29-6-1995).

The Banyankore are found in Western Uganda, and this is a student from NTC. Kakoba. Most rural girls who do not go to school are actually married before the age of 18 for the purpose of acquiring a dowry and preventing pregnancies before marriage. Such a young bride will be valued if she produces as many children as possible to increase the number in the clan. It will also increase the woman's security in old age in terms of property rights over land if she has a son in that family. This is true for most societies of

Uganda. During the pre-colonial trade women were at times used as a medium of exchange, as trade changed from barter to something nearer a monetary trade. It is noted by some scholars that iron hoes or women were exchanged for cattle and other milk products, grain, etc. among the central and eastern tribes of Uganda (Mamdani, 1987; Bbuye and Kagoda, 1992; Were and Wilson, 1988). Reproduction, socialization and consumption become the main worth of women. It is rather unfortunate that a young man who is going out to teach girls in secondary schools has such a biased attitude towards women. This is why Reardon (1993) and other female peace educators like Birgit Brock-Utne (1988) emphasize the importance of introducing gender education in our education system, hopefully resulting in the change of attitudes of such people. This brings about insecurity among women in such situations as revealed by these participants:

> *The lack of spirituality may cause violence but poverty is the main cause. A man here in Bushenyi will not allow his wife to cut bananas once he is poor. He will start preserving big bananas for cash, and starts partitioning the plantation. He doesn't care for the children and he will drink all the money, and then come back to fight.*(ST (5), 6-7-1995).

> *Even rich people experience violence. A wife may not be happy, or a man starts cheating on his wife and the woman will keep quiet because of the man's richness. The wife and children will be very unhappy* (ST (5), 6-7-1995).

These are students from NTC. Kakoba, some of whom come from Bushenyi a few miles north of Mbarara town. They look at the problems of insecurity in the home where a wife and children face violence at the hands of the man. To most women the notion of security as protection from attacks and harm by others includes other forms of violence; wife beating, dowry, enslavement to enforced prostitution and the ever present threat of rape. Peace from a woman's perspective means a condition of social justice and equality, equality between men and women as a foundation for equality among people. In a feminist framework, security would have a broader holistic definition to assure that all interrelated and relevant factors affecting world security are taken into consideration. It would aim at protecting life and enhancing its quality, providing equal attention to both fundamental requirements of human security.

> *Women contribute little to the economic development. They are traditionally handicapped because they are not educated. If traditional biases are removed and they become educated, then they will contribute much* (ST (4), 5-7-1995).

Other students and a lecturer are of the same view toward the education of girls:

> *This is a patrilineal society with gender roles. There is, therefore, prioritization of education and girls are left out* (L (1), 22-8-1995)

> *Most girls in Uganda do not go beyond primary seven. They believe that girls will go away but boys will stay, so they do not educate them. Women are not educated and yet are tractors in agriculture. It is a matter of changing attitudes to see that women are as important* (ST (2), 27-6-1995).

The participants above are in a critical paradigm when they raise the issue of women's unequal access to education. Most girls drop out of school especially at the primary level because of fees. Sometimes parents just want to get a dowry so they withdraw their daughters from school. To address this violence on women requires changing the attitudes of people who traditionally favour boys who are supposed to inherit their father's homes. Illiteracy for women in the whole of Uganda is still very high because girls are not given the chance to go to school. One of the lecturers said:

> *Things are alright since there is a fully pledged ministry of gender. There is a need to change attitudes of people. However, in teaching we touch gender issues when dealing with the population* (L (3), 9-8-1995)

With the United Nations Decade of Women and its recommendations in 1975, and later 1985, most countries who signed these documents promised to make conditions better for women. In most cases women's desks were created in most ministries and a department or ministry of gender was also established. However, this is tokenism considering the continuing deterioration of women's conditions in most South countries. What is required is a commitment by both men and women to bring about change by recognizing women's contributions to development. Women have to form pressure groups in society, schools and tertiary institutions that persuade governments to improve their conditions. Both men and women have to conscientize men to equalize power between the sexes. A member of the NCDC. geography panel said:

> *Women participate in development, it is true; but it is controversial as to what level. Some statistics are questionable. Some people say 80% of agriculture is done by women but this is not true everywhere. Men grow crops together with women. In some areas women do a lot of agriculture but there is too much over-generalization. Men are behind this agricultural production, although some books say men clear the land and women dig. These days men resort to drinking, but long ago both used to do digging equally. Both boys and girls join in sowing, weeding and harvesting. They reproduce labour. In the Third World they are engaged in subsistence production which is not included in national statistics. It is, therefore, not clear how much they contribute* (GP (3), 7-8-1995).

> *We look at labour as labour with no distinction. One needs more statistics at hand and this involves more complications. One needs to carry out research on the productivity of women* (GP (5), 16-8-1995).

In order for a woman to be recognized as doing work, she has to work twice as much as a man in order to prove her worth. The participants do not question statistics concerning men's contributions to development nor suggest that more research be done to prove that they do work. The above participants believe that since statistics are not clear as to the exact number of women engaged in production, we should not assume that they work more than men. They also believe that since subsistence agriculture is not quantified, there are no statistics to prove that women perform more than men. The lecturers and members of the geography panel are crucial in determining the geography curriculum in schools. In doubting whether women actually contribute 60 percent or 70 percent or 80 percent to production, such educators may inadvertently reinforce attitudes depreciating the value of women's contribution to development that is now well established in women in development studies and research (Waring, 1988).

Only a few students mentioned culture and female circumcision as an issue in discussing women in development:

> *The Sebei have a culture of female circumcision, so other tribes cannot marry women from there* (ST (2), 27-6-1995).

In a workshop held in Kapchorwa, Uganda (2-4 December 1991), this practice of circumcision was pointed out as a danger to women since there is a health risk because it is done under unsterilized circumstances. It is a violation of human rights because the woman is forcibly denied the right to enjoy her sexuality. Most young people oppose it, but the surgeons (who are actually women) and the conservative Sebei believe it is a cultural practice that should be promoted (Kampikaho, 1992) In this case there is a need for conscientization of both men and women so that they are aware of the dangers involved, an issue on which the global human rights movement is now campaigning However, from a transformative paradigm, it would be important of course to understand the cultural issues involved in such rituals, so that human rights action is not based just on "western" norms.

Various action research programs have shown that women are more likely to become better organized as a group than men (Wickrama and Keith, 1994). However, development efforts have failed women by ignoring their particular vulnerabilities and the unique organizational strength that their positions have generated. There are informal groups of women existing in villages in developing countries that promote various activities. These include labour exchange, collective production in cottage industries like pottery, weeding, harvesting, savings and ceremonial functions. Also women's greater interests in family stability and their desire for family improvement contributes to the formation of a suitable credit system. According to the participants, there are no purely male indigenous groups in the villages, let alone in urban areas, geared to development, except for drinking alcohol and in Kigezi for buying coffins when a man has died.

The organizational strength of poor women, for example, has been used by the Granmeen Bank of Bangladesh, which is based on the formation of small informal groups of the poor. The Bank has concentrated on women arguing that they are more interested in family stability and that they contribute more to the security of the family than the males (Wickrama and Keith, 1994).

In Uganda the current government has encouraged women to participate in politics which is demonstrated in a significant number of women in parliament. There are 51 women members of parliament out of 276: 39 representing Districts, 1 representing the army, 8 directly elected (in competition with men), 1 nominated by the President, 2 representing the disabled. This is quite a significant number although in voting they would be outnumbered. In education, positive discrimination was started at the university, although the daughters of the poor do not yet benefit from this policy. Women's indigenous organizations are promoted to tackle issues of health, education, economic empowerment as well as legal issues. Gender education is recommended in the Government White Paper, illustrating the commitment of the Ugandan government to the cause of women (Government White Paper, 1992). Hence, from the data presented, a significant proportion of the research participants are already aware of gender inequities in development, although there is still room for further education in this areas. As the survey findings also confirm, a majority of respondents were aware of the contribution of women to development although even there, some 60 percent still believed that Ugandan men and women are treated equitably.

The South and World Economy

Most South countries suffer from economic weaknesses, specifically their chronic foreign exchange difficulties, which are a result of declining prices for exports. The huge proportion of export earnings go to debt servicing and to remittance of profits on foreign investments. Uganda is one of the countries that has implemented the IMF. and World Bank policies in recent years. I wanted to find out participants' views on the IMF. and World Bank policies on South countries (Third World). The students and lecturers had contrasting views:

> *They demand privatization because of inefficiency, so after selling these enterprises, the government will sit idle without anything to manage* (ST (2), 27-6-1995).

The students are referring to the intensive process of privatization that Uganda is currently undergoing. South countries are urged to privatize because of the shortcomings of public enterprises. The students do not mention the fact that civil servants are also cut and, therefore, there will be no-one sitting idle. Public enterprises are habitual loss-makers surviving on government subsidies. At the same time, it is difficult for the government to monitor financial operations and this, in turn, leads to corruption. Since they are undercapitalized, they cannot be self-financing, fostering the propensity to borrow, adding to domestic inflation, external debt and balance of payments. Public enterprises are also prone to government interference - from the regulation of prices to the awarding of contracts, which at times causes further corruption in the form of 'kickbacks'. Privatization, however, will make matters worse, since a capitalist typically does not see a poor person and has no feelings for her/him. Students went on to say that

> *Whites will come in again to subjugate us; people will have no jobs* (ST (3), 29-6-1995).

> *Economically they give loans for industrial development with strings attached. They dictate what we should be and yet it may not be beneficial to us* (ST (5), 6-7-1995).

The students here are critical of the way foreign companies are returning to Uganda or other South countries in order to control the economy. They are aware of the way these companies end up dictating to the South government their terms of operation, which usually is not beneficial to the people in the south. The Structural Adjustment Programs (SAP) enforced on South countries are contradictory to the development and sustenance of democratic government and the free operation of civil society and autonomous civil organizations. The side effects of structural adjustment programs are demonstrated in the following: quality of life of the poor has declined as prices have risen, infrastructures have crumbled, services deteriorated, and employment opportunities reduced. The most severely affected are rural peasants, urban slum dwellers, female-headed households and children of the poor. (Binns, 1995) This is because the SAP undermines South countries' sovereignty and help to strengthen authoritarian regimes who implement anti-democratic sets of socio-economic reforms entailed in the program. The limitation of the definition of democracy with multi-party politics (which is a winner-take-all system), is that the winners become beholden to the donor , while group and social rights are not articulated. The concept of rights, under the framework of the new political conditions, does not take into account the changed situation in Africa thirty years after independence (Barya, 1993). Democracy in this condition does not refer to the popular participation of civil society in the decision-making process of the state and the political economy. Democracy should mean participation of the civil society but not dictation from abroad. Earlier in chapter one I mentioned that Uganda's 'Ten Point Program' and the "Resistance Councils" system of political organizations is a contradiction to this conditionality.

I asked students to give an example of a World Bank loan, to which a few answered:

> *They gave us 'entandikwa' for rural investment. It was meant for the rural poor and every county in Uganda was given thirty million shillings. In my county, the money disappeared in thin air; we do not know who got it* (ST (4), 5-7-1995).
>
> *No! the big men in the county divided it among themselves* (ST (4), 5-7-1995).
>
> *In my county, I was told the poor had to provide 'chai' before they received anything, so in fact they didn't gain* (ST (4), 5-7-1995).
>
> *They cut off some of the essential services like education and health* (ST (4), 5-7-1995).

The students are not aware that the Entandikwa scheme is being implemented from the Ugandan government's own resources. No donor funds are involved. Corruption is rampant in most of the big corporations and government bureaucracies and this is a cancer. The President of Uganda keeps appealing to the leaders to become more humane (Museveni, 1992; Brett, 1993). The failure of the trickle-down theory is well illustrated here in that the poor never receive much from what is supposed to trickle down to them. In response, the students were talking of what they had experienced in their lives. All of the students went through their secondary and college education on meager resources because the IMF recommended the cuts. The students here were moving toward a critical paradigm of understanding issues of aid and development.

However, a few lecturers and some panelists had this to say about IMF. policies:

> *The IMF. policy of privatization of the economy is a good aspect of western people. There is awareness that business lies within one's hands, therefore, is more efficient and has profit maximization. Producing goods of high quality leads to a country's economic development* (L (3), 9-8-1995).
>
> *IMF. helps the economy and provides basic health care* (L(3), 9-8-1995).

The participants gave the example of water projects in Uganda as part of basic health care. The participants emphasized efficiency, maximum profit, quantity, and high quality as leading values in privatization. This privatization, however, ignores the human element in the process of production. Distribution of wealth is not mentioned, nor is cultural, political and social development of the people considered by the participant in his support for privatization. Competition can be good if it is not allowed to monopolize society. If it is allowed to develop to the extreme, it will undermine cooperation and solidarity, undermine links between individuals and countries, and encourage the development of the mentality of 'every man for himself' which disregards the rights of others (Hilka, 1994). Only the rich local people and foreigners will be able to buy these enterprises while the poor become poorer. It discourages the culture of responsibility, and George (1982) calls this *economic apartheid,* defining it as:

> A pyramid with a transnational elite at the apex, a more or less secure middle class below, and under them the vast and growing underclass below, and underclass of people who are unimportant both as producers and as consumers and for which the system has absolutely no plans. This is a model of economic apartheid (p.120).

Market mechanisms and competition work to the benefit of the rich and strong, giving the poor and weak no chance. The widening gap between the rich and poor is the basic cause of flow of migrants and refugees from rural to urban and from South to North countries. Hilka (1994) calls this a 'recipe' for increasing human misery, conflict and disruption of social structures in both the South and North.

Yet, some lecturers and panelists are in support of privatization, which can yield positive outcomes if appropriately implemented; but the other side of the coin should also be scrutinized. A few went on to say:

> *They believe that as long as there is security in the country, that is enough. That is why they make cuts to the social sector and leave defense spending* (L(2), 22-8-1995).
>
> *Economies and political systems are all dictated by these developed countries indirectly and we may not perceive this. Donors dump their donations like second hand clothes, a,b,c - and we say thank you. We do not know their intentions. Because of poverty ,we just receive; we do not find out why they are rushing to assist us* (L(4), 9-8-1995).

In sum, a majority of the participants are very critical of the IMF., World Bank, and the foreign investors, although there is a need for greater awareness on the role of local elites who collaborate with them in the exploitation of the poor. Most of the participants say they are experiencing these events in their every day lives and that is why they are very critical. Geography has a role to play in making students aware of the workings of the international financial institutions, world trade, and how South countries are affected at the grassroots level.

Population

As population is one of the Geography topics taught in secondary schools , it is pertinent to find out how the research participants view the causes of overpopulation. A few argued as follows:

> *In Bakiga culture you are powerful if you have many wives, but overpopulation sometimes does not apply because family planning says you produce the number you can cater for* (ST (1), 24- 6-1995).
>
> *In my culture (Nkore) there is need for child naming. A man must name all his ancestors which means getting many children to name all the dead relatives* (ST (4), 5-7-1995).
>
> *Population increase means security, continuity of a clan, e.g. in Kasese, the Bakonjo believe the more daughters you have, the more in-laws who will bury you in dignity* (ST (1), 24-6-1995).
>
> *Some people fear some of their children will die* (ST (5), 6-7-1995).
>
> *Polygamy and Islamic religion make men have many wives and many children* (ST (2), 27-6-1995).

Wealth in the traditional African sense is not measured in monetary terms, but rather in the number of children and cows one has. The students have a view that high fertility rates can be controlled by the spread of modern contraceptives and other family planning methods alone. Uganda and Kenya have had family planning clinics for more than 20 years and yet they have the highest birth rates in the world today. Also, people who lose children to high infant mortality seek to have more, with the hope that at least some will survive to adulthood (The Population Council, 1987; Roberts, 1990). It is also a rational economic decision for the poorer households to seek social and economic security in larger families. In communities where women do not own property, children become their security, since the mother is assured of a future in that home. The students also suggest the culture of polygamy as being another cause of overpopulation. They do not, however, mention inappropriate technology which forces poor people to have many children to provide labor. For example children are needed in cultivating cash crops, carrying water, looking for firewood, looking after animals and many other chores in the homestead. Other factors, such as lack of education, are believed to contribute to high fertility rates by some participants:

> *People are not well educated so they tend to marry very early. People in school will not bear children until they are 25 years; such a woman will produce less* (ST (2), 27-6-1995).
>
> *In Rukungiri, people do not go to school; they marry at the age of 16 years* (ST (1), 24-6-1995).

Improvement in income, education and the health of women are important prerequisites for the eventual reduction of fertility rates. Only then can family planning programs become an effective instrument to bring fertility and mortality rates to an acceptable balance. Some of the elite in urban and rural areas in Uganda with better incomes have few children (from 2-4), and this is a good example illustrating better welfare and fewer children. The students believe that if girls stayed in school longer they will produce fewer children. The students also suggest that regulations can help:

> *There is a lack of rules and regulations governing population, therefore, someone can produce 30-50 children for prestigious reasons. Such a person is regarded as a powerful man in society* (ST (4), 5-7-1995).

The students do not specify the kind of regulations they want in place. Regulating or forcing people to have few children is, however, inhuman. Forced family planning is currently practiced in Asian countries, especially China. Forced family planning coupled with gender inequities and patriarchy, as a form of population control for India and China, has had the effect of increasing female infanticide (Morrish, 1994). In this case, regulations should focus on designing and implementing policies that help raise the level of economic well-being in the vast majority of families. The students added:

> *I read in a book that Africans have no leisure activities to occupy them, so all the time is spent on child making. And cold places induce people to go to bed early producing more children, example Kigezi and Mbale* (ST (1), 23-6-1996).

Students should not accept such information without reflection. Instead, a critical analysis should be made of such texts to find out about the authors of such books. The students did not give a particular reference where such information is available. Such biased information makes such students blame themselves instead of finding the root causes of high fertility rates and solutions to such problems.

Militarism and Refugees

Local wars in most countries are a result of deep-rooted domestic and regional ethnic, religious, racial, and economic tensions. Wars can be costly in human lives, as seen in Ethiopia, Sudan, Rwanda, Yugoslavia, Afghanistan, and many other countries. Wars escalate partly because of the existence of government and Defense Departments which specialize in fighting and preparing for war. Defense Departments justify their existence and their budgets if they have an enemy or a potential one. This militarism has resulted in a large flow of refugees from one country to another. While national governments and superpowers cannot eliminate all wars, they can help to minimize the intensity and duration by restricting the flow of arms. Some of the participants' views on militarism and refugees included:

> *There are conflicts because people do not learn about each other's culture. "With time, education will enable people to live together"* (ST (2), 26-6-1995).
>
> *Instead of bringing weapons, we need conscientization to get rid of tribal conflicts, greed and hunger. These people should come together and talk instead of fight* (ST (4), 5-7-1995).
>
> *Refugees come as dependents and are a result of people failing to compromise. People should have minimum and maximum positions. People hate negotiations and this ends up in conflicts. Poverty causes these conflicts, e.g. conflicts in Rwanda are due to poverty. In Uganda they are due to power-hungry people. In general, fighting is caused by greed* (L(2), 22-8-1995).
>
> *Poverty of people is the main cause of instability. Security would come about if there was talking between groups. There is a need for participation by the people in politics, and awareness, a mass education of people* (ST (1), 24-6-1995).

Currently, over 90 percent of today's states contain at least one ethnic minority, and about 40 percent of the world's states contain more than five sizable ethnic populations. Most of the world's 12-15 million refugees in the early 1980s fled their countries because of ethnic or tribal or religious persecutions. Many African leaders have relied on the support of fellow tribesmen or cultural affiliations to attain and maintain positions of power. Such tribal or ethnic politics, which favour the few over the many, have not and cannot generate the legitimacy necessary for regime stability and internal security (Magnarella, 1991). Participants point out that weapons will not get rid of greed or tribal conflicts, nor hunger. Instead they are advocating for negotiations and education that teaches about culture.

Other participants also cite other causes of conflicts:

> *There is a struggle for the fittest resulting in wars for the diminishing resources. Historically wars were used for territorial expansion and oppression* (L(4), 9-8-1995).

> *Political instabilities are produced by the western world who interferes in southern countries* (L (1), 22-8-1995).

> *Conflicts are caused by whites who developed some areas earlier than others, resulting in conflicts. The less educated feel inferior and are always despised by the highly educated* (L (2), 22-8-1995).

> *If nuclear weapons are not used, the demand will be low. Peace means no demand. If it is used it will affect our lives* (L (4), 9-8-1995).

> *Nuclear weapons have been circulating all round the world and may have been tested on our land* (ST (3), 5-7-1995).

The participants are more critical when they point out that wars are a struggle for resources and that some North countries may even benefit from conflicts which become sources of markets for their arms manufactures. Another issue raised is colonialism, which developed some areas at the expense of others, resulting in conflicts between such people. The students in most South countries have not experienced nuclear weapons except those who live near testing grounds. When a nation is displaying the means of physical violence by testing nuclear arms, nobody is visibly hurt, but there is the threat of physical violence and the indirect effect of mental violence. This is a type of psychological violence as it constrains human action. Since the advent of nuclear weapons, security has been sought within a framework of the deterrence theory. The nuclear powers have engaged in an arms race to ensure that their weaponry is more numerous and destructive than their enemies.

The students have observed the effects of poverty in society and the army, and lamented the way they behave:

> *On the other hand, soldiers might use these weapons on citizens. If they are paid reasonable incomes, they may stop stealing and corruption* (ST (3), 29-6-1995).

> *IMF. has a negative impact on the country; for example, retrenchment has led to stealing. Soldiers were given packages but few used them, and are now stealing by making illegal roadblocks. They are now thieves in Mbarara* (ST (4), 5-7-1995).

The soldiers with no skills and money tend to use their weapons to look for food and money for survival.

> *The cause of war is poverty. International NGOs are interested in conflicts because it is a way of maintaining their jobs. Arms manufacturers get markets for their weapons and yet war destroys the environment. Disarmament will help preserve the environment* (L (2), 22-8-1995).

The participants see poverty as the main cause of insecurity. Achieving economic security involves creating a viable economy that can ensure, for a significant majority of the adult population, steady employment and a sufficient income. This will allow them to enjoy adequate nutrition, housing, health care and educational opportunities for themselves and their families. The people's deprivations become the underlying cause of the threats to the regime. Civilians are suppressed in the name of national security even as their human rights are violated (Magnarella, 1991). In Uganda, most of the people who join the rank-and-file of the army are poor peasants who are landless and unemployed, and the military service gives them employment. These demobilized soldiers mentioned by the students become thieves because they have no other skill to enable them to get food and shelter. The government should think seriously of these people.

The government could, however, be instilling discipline and work ethos in the youths as well as developing skills. Technical training should be an important part of the military service thereby, adding to human resource development. Defense budgets may be helpful in enhancing this reservoir of labour toward becoming a disciplined productive labour. Barracks which are in urban areas should teach soldiers carpentry, metal work, retail business, cookery, sewing, poultry, and other simple skills that can be done in the small space available. Those who dropped out of school can be given secondary or primary education if they wish so that they can join an institution of further education, such as teaching or nursing, if they leave the army. Rural barracks could teach agriculture, animal husbandry, carpentry, primary and secondary education, which will enable them to continue with life after the service. The IMF. should be sensitized to start such projects for soldiers in South countries before these youths are laid off and given packages which cannot enable them to start a reasonable income generating project, with potential outcomes for social harmony.

Majority of the participants, however, advocate for peace and disarmament as reflected in their statements:

> *Increasing weapons doesn't increase security. Museveni's weapons have not stopped Kony and Itongwa* (ST (4), 5-6-1995).

> *Many weapons do not encourage reconciliation with enemies. Negotiations will lessen the loss of life* (ST (5), 6-7-1995).

> *Weapons will not stop fighting. Look at the U.S.A. and Sadam* (ST (2), 27-6-1995).
>
> *If you have too many weapons, soldiers will steal and sell them in rural areas, increasing insecurity. Itongwa had a lot of money to buy them. It is the rich who go in other bush; local people do not go there. So the rich cause problems* (ST (4), 5-7-1995).

Self-restraint and the development of non-violent techniques are important in solving conflicts. The students believe that if people accept each other and reconcile with their enemies, wars might be lessened and democracy and peace will prevail. They give examples of the guerrilla leaders in Uganda as well as the U.S.A. and Iraq. The majority are in a critical paradigm when they show the value of reconciliation, negotiation, peace and democracy. A number of participants however, are in favour of military spending:

> *I cannot lose a person and the other party doesn't, and then you ask me to negotiate!* (ST(5), 6-7-1995).
>
> *We should increase military spending; otherwise we might be attacked by neighbours. Sudan fears us because we have 'scud missiles* (ST (2), 27-6-1995).
>
> *In Uganda, there has been much conflict, so we need some kind of military spending to maintain security* (L (3), 9-8-1995).

These comments reflect ideas and values of revenge and deterrence. Regimes commonly associate internal threats to their rule with external enemies, thereby justifying the use of armed forces against domestic opponents. They react to real and perceived threats to internal security by building up their military and police forces. The Ministry of Defense's high ranking officers should be made aware of the effects of war through peace education. The current cadre training at Kyankwanzi and other stations could be broadened to include peace education, starting with the instructors.

A few participants empathized with women and children who end up as refugees:

> *Women, children and old people end up suffering during wars* (L (4), 9-8-1995).
>
> *Within Uganda, many people were displaced. Education, medical facilities, shelter and security are absent for refugees. People are not settled, production goes down and GDP also goes down* (UO, 29-8-1995).

Women take over all responsibility for the children, some of whom may be too young to walk or look after themselves. They have to look for food before any charitable organization gives them some, and even then it is not always enough. Most important women and young girls face the risk of rape by the opposing forces in their home of origin as well as where they are running to. Rape actually results in unwanted pregnancies as well as sexually transmitted diseases, some of which are fatal, such as A.I.D.S.

However, majority of the participants are not sympathetic with refugees:

> *They come and stay without helping in developing the host country. For example, we trained Rwandese but they have all gone!* (ST (4), 5-7-1995).
>
> *In Uganda we have Rwandese; they cause land shortages and some stay for good.....It also leads to brain drain by people claiming they are refugees* (L (1), 24-8-1995).
>
> *The refugee problem is one of those causing environmental problems. There are troubled spots in Africa, Zaire, Uganda, and Rwanda for example* (GP (3), 7-8-1995).

Refugees are blamed for the degradation of the environment, especially where they settle. Those who are completely absorbed into the local population are difficult to detect, so they may end up using the host country's resources, such as social services. It may be difficult to identify them if they use similar names as the host communities. Because of the humanitarian attitude implicit in African family and tribal values, and because of the kinship ties that transcend the boundaries of nation-states, the refugees are generally well received, treated well and accepted into the social and economic fabric of the host country. This favourable treatment of the African refugees has tended to conceal their tragedy and minimize international response to their needs. Most of the refugees were integrated into Ugandan societies, and were allowed to cultivate and rear animals during their stay in Uganda. Concerning refugees and their impact on the host country, the students were rather emotional in their response, with fresh memories of Rwandese refugees:

> *The extent to which they benefited from us is more than us. They used our land and destroyed our environment. They went with our cars and cows* (ST (5), 6-7-1995).

These were mainly students from south-western Uganda where most of the Rwandese refugees settled. The students believe that refugees have no education and possess few skills other than those relating to subsistence agriculture. In reality, in Uganda, Rwandese have provided labour in coffee and cotton plantations of Buganda, and some were teachers, nurses, soldiers, farmers while trying to survive. Since the Rwandese stayed in Uganda for a long time, their children obtained education from Ugandan schools and colleges. The students were looking at the situation from their viewpoint only, without considering what the refugees had gone through in the process of running away, staying in camps and the discrimination faced in their daily lives. The students appear not to know the root causes of refugees and may not, therefore, be sympathetic to them. Some scholars argue that the host country gains a lot from refugees, although this is debatable. Increased health care and education facilities available to refugees will be available to the local population as well, they argue. An increased standard of living for the refugee population may contribute to an increased standard of living for the local population via increased consumer markets and other such linkages. Increased attention devoted to the refugee population will lead to attention directed toward the local population through increased international support (Argent, et al, 1991). This is true where the refugees are well looked after, with enough facilities to spill over to the local population.

In short, the geography of refugees should be an integral part of the Geography curriculum, since we have them in our midst and they will not soon disappear. Children and adults would be conscious of refugee problems so that they understand and appreciate the conditions faced by refugees. Geographers can be involved in issues of human survival, spatial patterns and social processes. These then need to be studied in relation to armaments, security and defense as well as in other contexts. The particular contribution of geographers is to emphasize the spatial and environmental aspects of armed conflict and peace. In other words, the students need to see the human consequences of their actions not just the economic ones but the ecological effects as well.

Finally, the participants do not mention international restructuring as another method of reducing war, which includes demilitarization as well as enhancement of equality and stability. This means less emphasis on the law of war, internal military peacekeeping, international military alliances, domestic military regimes, military spending and military themes in media and culture. Restructuring also means moving toward greater equality, and a more equal sharing of power, wealth and knowledge.

Cooperation among different people could be encouraged and supported by governments through projects, which might be an effective method to bring about peace. It could be cooperation that ensures human rights, protection and the development of individual human beings. Teachings of non-violence by historical religious leaders might help change the attitudes of people concerning fighting. Traditions embodied by Buddha and Jesus Christ have inspired successfully modern political movements and leaders, as in the Indian struggle for independence by Gandhi, and in the U.S.A. by Martin Luther King as well as many others. In Southern Africa, many leaders such as Bishop Tutu and Mandela used non-violent means to negotiate for peace (Beer, 1990). Multicultural education and activities can be encouraged and introduced in schools, village structures, military, prisons and police forces so that people can learn to live together. Women's organizations in urban areas of Uganda have shown a good example of people from various tribes cooperating on a particular project (Tripp, 1993) instead of planning to fight. On the issues of conflicts and violence, the research participants therefore have some bases for promoting a transformative paradigm, although on some specific issues, there is room for more critical awareness which should be considered in the Geography curriculum.

Environmental Care

The main non-conventional energy resource for most people in South countries is fuelwood and, to a lesser extent, charcoal. Fuelwood is used for domestic purposes such as cooking and heating. Nearly all of the rural population (85-90%) use fuelwood almost exclusively for cooking (Nkonoki, 1991). Concerning deforestation and planting of exotic trees in areas which have been cleared, the participants had various views as noted below. The students from NTC. Kaliro where Mvule, the famous hardwood tree, is in abundance, said:

> *Forests are cut for fuel, building poles, charcoal, for curing tea and tobacco, baking bricks and also clearance for cultivation, e.g. Kiige government farm in Kamuli district. Mvule trees are cut for export, e.g. Kaliro Saw Mill exports Mvule timber* (ST (2), 27-6-1995).
>
> *There is no real forest around, it has been destroyed for firewood, building and smoking fish. The growing season for exotic trees is short so they should be planted instead of people cutting the indigenous trees* (ST (1), 22-6-1995).
>
> *Every Ugandan should grow an exotic tree for use as charcoal or firewood* (ST (3), 29-6-1995).

Wood is the main source of fuel in both urban and rural areas of Uganda despite the large hydroelectric dam at Jinja. Electricity generated in this dam is so expensive that the majority cannot afford to use it. Secondly, there is a need for rural electrification to enable the rich peasant to use it instead of wood. The students do not mention that forests are also cleared for the production of cash crops which are exported (for example cotton, coffee, tea, etc.). It is implied in the responses that there are no forests in their original form. Mvule trees take a very long time to mature, and yet the people harvesting them do not plant any. According to the student teachers interviewed, the owners of the land where Mvule trees are cut are paid a maximum of U.S. $10.00 and yet the transnational corporation receives millions of dollars when it exports the wood. However, on the question of exotic verses indigenous timber for fuel, the students need to become aware that exotic species may not be resistant to disease or use excessive water whereas there are fast growing indigenous species in Uganda. .

Cutting trees for fuel and timber has contributed to serious environmental degradation in the form of soil erosion, loss of soil fertility, declining water tables, drought and others. This has resulted in women walking longer distances in search of fuelwood, and more time and muscle energy being spent in the process, leaving women less time for productive work, rest and recreation. It was taken for granted that rural energy resources were always going to be there and would always regenerate themselves without much human effort planning for it. This is where N.T.C.s can participate in community work and encourage villagers to plant indigenous trees identified by both students and rural people.

Agriculture

Agriculture is a major topic in the Geography curriculum, especially in the regional studies in Africa, East Africa, North America and the Rhine Lands. I asked my informants their views on development projects studied in both the NTC and O-level 273 syllabuses. A minority of students had this to say:

> *These whites are imposing these ideas on us. Cow dung was used by my grandmother; we do not need chemical fertilizers in Uganda* (ST (1), 24-6-1995).
>
> *Someone has to understand these peasant farmers; they need the assistance of agricultural officers who are not available due to retrenchment. Peasants are illiterate, so they cannot read instructions on chemicals. In 1993 in Lira, chemicals were supplied to control weeds. People applied them and ended up burning even the crops they were supposed to protect. In my sub-county there is only one agricultural assistant. Most of them with the veterinary assistant were retrenched* (ST (1), 24-6-1995).

Some of the participants do not see the use for chemical fertilizers when organic materials like cow dung can be used. The effect of IMF. policies for reducing government workers is raised here and the students are of the view that since there are no extension officers to help illiterate peasants to read instructions on drugs, they should not be supplied to farmers. The students are aware of the effects of chemicals to the environment including people and other animals. With heavy reliance on chemicals, the soil's organic matter is destroyed, leaving land hard, more erosion prone, and causing more rapid evaporation of moisture. This in turn necessitates the application of more energy, chemicals and water to offset what would otherwise be in productivity. Uganda at this particular time does not need chemicals on the peasant farms, and they do not even have money to purchase them.

For a majority of the participants, questions were raised about relevance of modern agricultural knowledge:

> *The economy of Uganda cannot afford the technology of the Tennessee River Authority. At this stage, our agriculture is at the peasantry level. We need simple intermediate technology. The syllabus was designed with the idea of promoting development; knowing about it is good so that we can learn the benefits and mistakes made by developed countries. The idea is to learn from them and incorporate what we can in our development* (L(1), 24-8-1995).
>
> *Knowledge of TVA is too advanced for us. We have small areas where tractors cannot pass. There are no floods in Uganda, and shelters are not in good condition for electricity* (L (2), 22-6-1995).
>
> *Uganda is economically poor so we cannot buy and maintain tractors. Relief of Kigezi and Mbale area cannot allow the use of tractors. We should use intermediate technology, and simple machines which do not cost much, e.g. plows* (ST (4), 6-7-1995).
>
> *These schemes cannot help us solve the problems of meeting our basic needs. We cannot imitate the use of combine harvesters when at home peasants cannot afford a hoe* (ST (1), 24-6-1995).

The participants' concerns are that the majority of farmers are too poor to purchase tractors, let alone hire them. Relief of land in East and western Uganda is raised as an obstacle to using tractors. They are advocating instead for affordable and intermediate technology . However, they do not mention that high technology is usually capital intensive, and therefore, a number of people will be rendered unemployed if used in South countries like Uganda on a large scale. The development schemes they study in Geography, they said, will not solve the problems of basic needs. Tractors and other capital intensive machinery is intended for the production of crops in large quantities for export. In Uganda, most peasant farmers grow crops on a very small scale and do not have money to buy machinery and chemicals. Unfortunately, South countries are accepting these innovations wholesale without questioning them.

The discussion became more radical when the students said:

> *The geographical setup of Europe is not the same as Uganda, so we should not imitate the European way of life. We must move step by step instead of just jumping to western life. They are a big step ahead, they took our wealth like gold, copper, etc. Their lifestyle is destructive* (ST (2), 27-6-1995).
>
> *Coffee is the leading export of Uganda. The question is how long will a farmer work to afford a tractor?* (ST (5), 6-7-1995).

> *These topics demoralize kids; for example, use of big machines, large yields. One child asked me, 'So it is useless growing crops using hoes; we should wait for tractors, fertilizers from government'. We are indoctrinating our children with such topics which do not help them* (ST (4), 5-6-1995).

The students reflected with more 'radical' statements when they added that North countries are too far ahead, especially after taking wealth from the South. They also raised the issue of the unfair, unequal exchange of goods between the North and South. The students later told me that they get such radical ideas from newspapers and some were influenced by the military and political education courses offered by the NRM. government to students waiting to join university and other tertiary institutions. The students lamented that:

> *We are studying things theoretically; even professors are theoretic, and have no practical knowledge to give us to imitate* (ST (2), 27-6-1995).
>
> *To pass examinations and get a good job is one of the reasons why we study North America and the Rhine Lands. Maybe we can imitate the Tennessee Valley Authority if can apply it on the Nile to help people travel from Jinja to the West Nile. The rich use planes while the poor suffer on road transport* (ST (1), 24-6-1995).
>
> *We can imitate the Tennessee Valley Authority to control soil erosion, develop water transport, and divert the Nile to irrigate Karamoja* (L (4), 9-8-1995).

The conversation turned pedagogical when the students accused professors of lacking practical knowledge. They believed that in order to pass examinations one has to study North America and the Rhine Lands which are too abstract to them. They showed sympathy for the poor who take two to three days to travel from one corner of the country to another while the rich use planes and make it in one hour! The third response suggested improving the semi-arid areas of Karamoja by starting irrigation schemes in this purely pastoral community. This response does not take into consideration the common citizen who does not cultivate but is just a herdsman, and that irrigation at the scale of TVA will displace him because he cannot afford to put in a lot of cash. The students lament that the syllabus is not related to their culture and they do not even know nor understand the machinery they teach about in secondary schools. These views are reflective of a critical paradigm here and clearly indicate that it is useless to imitate what they are being taught in the classrooms. They have also observed that many people who finish senior four and other upper levels of education do not get jobs even on a self-employment basis. Others added:

> *Students should imitate skills of watering plants using simple technology. Using hoes to grow basic foods. Using technology to divert water from rivers to their gardens for irrigation. We do not have money to buy tractors, or build dams. Dams create lakes, which are good, but have their effects. We are not yet developed enough to buy tractors, not well educated; most people are subsistence farmers. Types of crops grown here limit technology we use. We can borrow ideas to apply but not imitate. We teach theoretically, there is not even capital to buy the technology. The curriculum is not backed by capital investment* (L (4), 9-8-1995).

> *There is no universal tractor. So there should be tractors designed for various topographical areas* (UO (1), 29-8-1995).

> *There should be an improvement in quality and quantity by use of hybrids, chemicals, and irrigation. We normally teach the theory and leave it at that, and there is no hope of application. Teaching about maize is more applicable than combine harvesters. The students tend to grasp the East African geography more than North America or the Rhine Lands. There is no need to imitate* (L(2), 22-8-1995).

The lecturers and teachers clearly said they are teaching what they believe cannot be applied in society. They pointed out that lack of education and technology are the main obstacles to using modern technology. In this regard, the participants here are more leaning towards a modernization paradigm. In choosing an appropriate technology, priority should be given to one which relies on local resources. This will enable the people to meet their basic needs and make a saving that will permit investment in further production without the need to borrow beyond their capacity to repay. The participants value teaching local geography and local crops which the students understand very easily.

Only a few participants interviewed saw some possibilities in borrowing from North experiences, as seen in the following statement:

> *Reclaim swamps of Uganda and use them like the Netherlands. I would encourage encroachment on some forests of Uganda to allow landless people to settle there. It is unfair for a country to emphasize forestry when some people are landless. We should imitate their technology wisely, and use their research, capital intensive production to produce more goods. We should copy tractors, combine harvesters, textile machinery to produce a lot of cloth. We should have machinery for processing sugar cane, etc. Copy their way of life that is improvement in nutrition, so that the homeless have enough to eat, clothing and shelter. Improve health and medical facilities like the western world* (L (3), 9-8-1995).

While the participant shows concern for the welfare of the poor in terms of good health, shelter and clothing, his solutions remain in the modernization paradigm. The participant is not aware that use of high technology will increase the cost of goods which ordinary people cannot afford to buy. For example, in Uganda the sugar produced by the two multinationals is too expensive for the majority of people. In most parts of Africa western private investment comes under the auspices of the powerful transnationals such as Shell B.P., British Petroleum, Esso, Total, and General Motors. It was hoped that transnationals would be useful tools for developing the productive forces in Africa by investing in research and development, manpower training, transfer of technology, local manufacture of components for export, etc. (Young, 1991; Chambers, 1983; Omo-Fadeka, 1991). These results did not materialize due to political instability, African economic nationalism, the state of infrastructure and limited size of the market in most African countries, and the preference of those transnationals in extractive industries rather than in processing. These companies cannot be domesticated, making it difficult for the economy to be sustainable. Most African countries have made little progress in industrialization and diversification of their economies despite the activities of these multinationals (Ake, 1987; Binns, 1994).

In a transformative paradigm of Geography, one has to be careful when deciding what can be imitated. These dams and irrigation projects may not be the best option despite the fact that the TVA is glorified. Large hydro-electric projects such as the Aswan Dam in Egypt, Volta in Ghana, Tellies Dam on the little Tennessee River in USA, all have a serious impact on their surrounding ecosystems. Dams are built to store water but due to sedimentation, the storage capacity is reduced year after year, and with it the electricity generating level for which the dam was built. In the case of Aswan Dam, another serious impact of siltation in the reservoir is the erosion of the delta. The Nile valley also lost its productivity due to loss of annual silt which used to fertilize the soil. Loss of sediments downstream contributed to a significant reduction of plankton and organic carbons, consequently the population of sardines, scombroids and crustaceans has been significantly reduced which has created hardships for the fishing community. Large dams also changed the ground water of the area in question. In Egypt this has allowed cultivation in large areas farther away from the lake, but on the negative side the rising of the ground water table increases soil salinity (Nkonoki, 1991; Timberlake, 1988). Despite these side effects and failures to meet their intended purposes, dams have been favoured by politicians, national plan makers, financiers, and aid donors alike.

Students in Uganda and Africa as a whole should be learning about the crisis facing Africa. The quality of life for the majority has been declining in both relative and absolute terms. "Increasing degradation would be a better description than development for the current trends" (pp. 215), commented Taylor (1992). The main features of this crisis are a deterioration in the main macroeconomics indicators, a disintegration of productive mechanisms and infrastructural facilities and an accelerating decline in social welfare as well as an increasing deterioration of the physical environment. Timberlake (1985) analyzes the African crisis as a problem resulting from having too many experts in the continent offering solutions to problems they do not understand. He also blames African leaders who do not understand the problems and end up concentrating development in cities at the expense of rural areas. The policies of nearly all African governments favour the urban elite by keeping food prices low, or by seeing to it that profits from cash crops go to urban-based companies and individuals. Governments do not have incentives to invest in rural areas. The students would be critically analyzing the role of government policies, inadequacies of the past theories and practices of development, and thinking of a way to solve the problem. For example, people throughout Uganda have been able to survive during the post war period as well as the present structural adjustment difficulties, using some local initiatives. Local initiatives in handicrafts by both women and men are going on in many countries. For example, blacksmiths in Ugandan villages have started making hardware by recycling scrap, knives, and saucepans. This kind of development should be taught in schools to show our children that development does not always come from outside donors.

This kind of development taught in the Geography curriculum is not sustainable. Sustainability is the ability of an agro-ecological system to maintain productivity in the face of natural and structural hazards, such as drought or farmer indebtedness. Sustainability can also be defined as the process of improving the living conditions of the poor majority while avoiding the destruction of natural resources so that increases in production and improvements in living conditions can be sustained over a long period. In South countries there is a livelihood component without which conservation objectives cannot be met. The social and economic components of household decision-making should be considered part of what is sustainable. This kind of development is self-perpetuating as it has led to the justification of more aid. This increase in aid leads to a continued extraction of resources, environmental damage, loss of self-reliance, increased debt, and deepening of the impoverishment of the majority of people (Redclift, 1987).

Most of the participants, especially the students and a few lecturers, are generally aware and critical of the global issues of poverty, militarization, the world economic system, famine and hunger, inappropriate technology, etc. They attribute this awareness to reading newspapers, listening to the news and the political and military science training courses offered by the NRM government. From my own observation and experiences as an educator in Uganda, Ministry officials, NCDC and UNEB officers are rather conservative and still tend operate within the modernization paradigm even though official NRM policies tend to raise issues more consistent with transformation.

Spirituality and Peace

Spirituality can be interpreted as something which permeates all human activities and experiences and can be described as a process of transformation and growth. Growth refers to growth in sensitivity to self, to others, to non-human creation and to God, who is within and beyond this totality. It is in a sense personal and is composed of thoughts, freedom, creativity and expression of commitments, aspirations and the values of a person. It is an integral, holistic and dynamic force in human life and affairs (King, 1993).

I wanted to find out the respondents' views on spirituality and peace. A minority of students had this to say:

> *Poverty and drunkenness bring problems, not a lack of spirituality. If you love your children, sisters and brothers there shouldn't be fighting* (ST (1), 24-6-1995).
>
> *The motto working today is 'For God and my stomach'. It can be experienced even by a two day old child. We do not have feelings for others, that is why we had problems in Uganda* (ST (4), 6-7-1995).

Sometimes poverty makes people behave in an irrational manner, and they end up violating each other's human rights. The students again raised the issue of addiction and alcoholism leading men to beat their wives and children. Any spirituality deep and large enough for this new global age also needs to include a profound sense of our common dependency on each other and the earth. This also calls for respect of the various cultural groups. A few again said:

> *There is no way you can convince a Muslim that Christians are brothers to them. They do not like Christians because they eat pork* (ST (2), 27-6-1995).
>
> *But even most Christians do not understand their religion; see how Bamwoze saga is going on in Busoga* (ST (3), 29-6-1995).

Most religions, traditional and foreign, preach love for one another, but people end up being violent. Clearly from the first quotation above, there is a need for the Geography curriculum to sensitize students away from stereotypes and towards inter-religious respect and equity. The students of N.T.C. Kaliro raised the most current problem of division within the Anglican church in Busoga Diocese where the college is located. They believe that people do not understand the religions they follow and that is why they end up fighting. Uganda is predominantly a Christian country with a significant number of

Muslims and Traditionalists, but people are still divided on a religious basis as mentioned above (Mazrui, 1978; Mudoda, 1975). A minority of students observed that:

> *When a person understands the content of his religion the problems may be less. On the other hand, this may not be enough; for example, due to economic conditions, parents discriminate among their children* (ST (5), 6-7-1995).
>
> *People who preach have stable homes. Their life is centred on love and fellowship. Religion teaches patience, tolerance, brotherhood, etc.,* (ST (5), 6-7-1995).
>
> *But people do not practice what is required of them. They do not live according to their religion. Everybody cares for himself and does not care for others* (ST (1), 24-6-1995).

The students were of the view that if people practiced what they preach there might be peace. They pointed out that economic conditions ~~force people~~ to discriminate against others including their own children. They also observed that religious homes are more peaceful than those which are not. This requires one to go through a journey of all the choices that have separated, divided and broken us. It also involves going through choices that have bound and healed us and made us one. These inward journeys make us aware of the deep unity within peoples; the joys and sufferings of the world's peoples and the unity of humanity. Learning to forgive and to seek forgiveness is the first step in the outward spiritual journey, in the healing of the planetary community and in the creation of a new world order. Lecturers and panelists responded in more or less the same way as students, however two participants were particularly interesting:

> *There are too many sects in Uganda today. Many people are not sincere with their religion. This country has a history of religious antagonism - Christians, Muslims and others leading to political divisions. The approach of teachers who preach religion is not good. They tend to despise other religions. The attitudes of people and many of those religious matters are presented to youths like that. It all starts at home* (L(1), 22-8-1995).
>
> *The concepts of 'love and compassion' are utopian, not human. There is no utopian on earth. Preachers themselves are selfish, people are selfish by nature. There is no love and compassion in exploitation, and today they are preaching privatization to improve efficiency. Owners of enterprises have no love and compassion; they are capitalists with love for profit* (L(4), 9-8-1995).

In Uganda, the population is divided on a religious basis and until recently, religious leaders preached against other religions. One participant compared lack of love and compassion among people to capitalist entrepreneurs who have a love for profits only. There is a need to reconcile people of various religious and tribal groupings to love and care for each other. The issue of new sects rising up today was raised and this is actually common in many countries. There is evidence of a new interest in religion, especially among the youth, often found at the margin or outside the established religious institutions. It is linked with the quest for meaningful religious symbols and a viable spirituality (King, (1993).

Spirituality can refer to a shared reference of respect or to the new thought emerging from a wide range of experiences from social changes to a political liberation movement. The discovery and affirmation of the unity of all in one spirit, one sacred source and divine consciousness, is a recurrent theme not only in tribal spirituality and the eastern religions, but also in the mystical streams of Judaism, Christianity and Islam. It is central in Sufi and Bahai spirituality which grew out of Islam (Mische, 1987).

Some discern the shaping of a global spirituality, which may lead to a new way of life, and is needed to prevent the destruction of our planet and to ensure a better quality of life for all living things. A healthy sustainable planet depends on choices made by people. The values we choose and the goals and missions we hope to realize are of decisive importance in shaping our choices. The outcome of our choices will greatly depend on the spiritual power and insight we have into the nature of things, of society, ourselves and others.

Geography is concerned with religion because it has a relationship with the world. It influences the way in which the environment is used and shaped, and in turn the world shapes it. Ideas, beliefs, rituals, and politics are part of the production process; they are part of the relations of production. It creates social cohesion, reflects social morality and reaffirms society. Religion prescribes conduct, legitimates socio-political order and channels human motivations and interests, as well as being a habitualized, routinized form of human interaction. Landscape, in a very broad sense, conveys the idea of land utilization and development by people and it is important to realize that ideologies (for example religious beliefs) are crucial to the direction and accomplishment of this process. Being spiritual means changing our hearts as well as our minds so that our feelings about the living earth is toward protecting it instead of destroying it.

To study the geography of peace is to analyze, reflect on, predict, map and attempt to foster human well-being on scales from the personal to the global. If our children are to become informed citizens in a democratic society then they need to explore and understand the debates, arguments, differing value-positions and perspectives on achieving well-being at an early age.

CHAPTER SIX

QUESTIONS OF PEDAGOGY

Introduction

In Chapters Four and Five, the focus of analysis has been on issues of content and knowledge found in the Geography program of the two selected NTCs. Paradigms of teaching and learning however need to look not only at what are taught and learnt, but equally important, the pedagogical processes and strategies of educating students about that knowledge and content. This chapter therefore turns to questions of pedagogy in the professional development of Geography teachers in National Teachers Colleges. Through narratives of the lecturers and student teachers, and on occasion administrators, the pedagogical orientation(s) and emphases of the NTC programs are illuminated. There is an examination of the methods of teaching in N.T.C.s as well as in secondary schools during practicum, including a more specific analysis of fieldwork as methodology, the pedagogical role of examinations and the medium of language used. The role played by the examination system in Ugandan education, including the NTCs, is also discussed, as are some data on the pedagogical experiences of the students and lecturers in their former school experiences. Finally, the chapter explores some responses of the research participants to the transformative possibilities that may be offered through integrating global perspectives in the Geography program, including participatory pedagogies. However, some potential obstacles to this integration are also identified.

Pedagogy in the NTC Geography Program

As earlier noted, the NTC Geography syllabus includes a substantive component on "methods" of teaching geography, including generic tools such as writing lesson aims/ objectives and tests/examinations, a range of teaching methodologies, use of visual aids and textbooks, and the more subject- specific skills of mapwork and interpreting photographic material.

Methods emphases: I was able to interview thirty-four student teachers from both colleges; twenty from Kaliro and fourteen from Kakoba. I also observed one class in NTC Kaliro and six student teachers teaching during their school practicum. My interest was to find out the students' views on the methods given to them for use in secondary schools. The majority of participants' responses are well expressed by the following statements:

> *We were given methods such as guided discovery, question and answer, fieldwork, and discovery. The lecturers used examples to show us how to use them, and told us not to dominate the teaching/learning situation. The lecturers kept on explaining and giving notes, but they never demonstrated how to use them. In fact, we were given a hand-out on methods of teaching. Fieldwork these days is carried out in the form of trips for pleasure. A trip and fieldwork cannot be easily differentiated* (ST (5), 6-7-1995).
>
> *In NTC it was a mixture of lectures, talk and chalk. The lecturers would come, talk, and go. Sometimes they would discuss with us in the class and give notes. They talk and we do not contribute at all. We are not allowed to discuss things in groups since there is little time. For fieldwork, we went to see a coffee factory and a saw mill* (ST (2), 26-6-1995).
>
> *I instructed my student teachers on question and answer techniques and discovery methods. Time is not available in short crush programs to use methods like debates, drama, games, simulations, role plays, films, etc. I have never taught them how to carry out fieldwork* (L (3), 9-8-1995).

If students are given methods of teaching in form of handouts, it is not surprising that they fail to internalize what they have never experienced. Furthermore, although the student teachers are encouraged in theory to use learner-centered methods and are told not to dominate, in most of the classes I observed, the teacher was at the front talking and writing on the chalk board. Only very occasionally was a question asked by a pupil.

The students' observation on their pedagogical socialization in the NTCs are confirmed by lecturers who admitted their reliance on giving the student teachers handouts of methods of teaching:

> *For methods I gave them a handout. But the good thing is that the geography they are going to teach is not new to them. They already know it. The students we admit here are University material; they can read and understand, so a handout of teaching methods on paper is enough* (L(3), 9-8-1995).
>
> *The students never internalize methods given to them in the college. I am conversant with all of them, although in my secondary education I experienced talk and chalk, and lecture, with no fieldwork. I do not demonstrate to students how to use these methods. I do not use charts or graphs, but use wall maps quite often. The methods I used and gave to the students were lecture, use of textbooks, newspapers and radio, and occasionally fieldwork. Visual aids are expensive so I recommended the use of a chalkboard to the students* (L (4), 9-8-1995).

Almost all of the student teachers I interviewed and observed in the classrooms indicated in their lesson plans the use of the discussion method. In one class where a female teacher was teaching about 'forestry' at Kiribaki Secondary School, Iganga district, the teacher was confined to one corner in front of the class asking structured questions which students had to answer. After the lesson she confirmed to me that she used the discussion method. Another male student teacher in Unique Students Academy, Mbarara, was teaching about New York City but using local examples of slums in Mbarara town. Although some of the students actually live in these slums, a proper discussion did not develop in the classroom because the teacher was in control. The teacher asked questions requiring one word answers, and the fact that he was condemning slums as being problems to the city council left the students feeling unable to say much about the conditions of life where they live.

Other participants believe that pupil-centered methods are not used because lecturers/teachers are not well trained and live in poor conditions:

> *Our teachers are poor and they cannot buy textbooks or radios; they cannot even afford newspapers so they are not up-to-date. The only teaching method is by lecture, used for the purpose of helping students to pass examinations. Practical skills of map reading and photograph interpretation are not used since they lack maps and atlases. They pick only those topics they know will come in examinations. Fieldwork is poorly taught and avoided at the O-level. Teachers are not motivated to carry out this work, and they even misunderstand the curriculum* (GP (3) 7-8-1995).

The above responses also show that only those topics spotted as commonly tested are taught.

> *My experience in a teacher training college was that we made our own teaching aids. We did peer teaching, and observed our tutors demonstrating methods of teaching so we actually imitated our tutors* (GP, 7-8-1995).

As observed before, the lecturers have no time and find it difficult to demonstrate what they do not know themselves:

> *Teachers lack various instruction materials for teaching. There are no prep books or textbooks, and they have universal textbooks which do not meet the requirements of our syllabus. Fieldwork is abandoned in schools. Things go wrong right from NTCs. Their conception of fieldwork is distorted; what they do is theoretical fieldwork* (UO (1), 29-8-1995).

The lack of learner-centered methods is attributed to poor training of teachers and a lack of teaching materials and textbooks. One participant implied that Grade Five teachers are not well trained while in NTCs and may not be getting enough support from trained teachers already in the field as well. It is also assumed that children know about the conditions of people in rural and urban areas so there is no need to teach about them, which justifies doing fieldwork in factories, plantations, game parks, markets, etc. These members of the geography panel, who in fact design the O-level curriculum, should be working closely with NTCs to ensure that teachers who implement this curriculum are well trained.

One Examination Board officer was likewise critical of the emphasis on top-down teaching in the NTCs:

> *Methods suffer from too much lecturing; there is no student involvement. So when they also go out they use the talk and chalk method with their students* (UO, (2), 23-10-1995).

Two other respondents echoed this sentiment;

> *A problem-solving approach will make it more relevant to Uganda. Environment and population were missing but now it is included in the proposed O-level geography syllabus* (GP (5), 16-8-1995).
>
> *It is irrelevant in that we do not incline people toward critical thinking about why things are the way they are. It should drift from merely stating where things exist. There is also a lack of up-to-date information and methods* (UO, 29-8-1995).

Even where fieldwork is practiced, both student teachers and lecturers were aware of limitations.

> *In our own fieldwork in NTC we went to a National Park and saw animals, then to Lake Katwe salt project where we saw machines used in the salt factory, and then to Hima Cement Factory where we saw more machines. But, there were no proper guidelines to fieldwork or data collection and no reports were made after the trip* (ST (4), 5-7-1995).
>
> *They should see what I do when I take them out. Fieldwork in this college is for those who can pay. It doesn't matter whether he/she is a geography student or not. In the field we observe geography features, national parks, plantations and factories. I am afraid poor geography students who cannot pay miss such trips* (L (3), 9-8-1995.

One lecturer is worth citing at length for his understanding of why pedagogical practices reflect the limitations already mentioned:

> *Student academic life is interrupted due to the shortage of finances, inadequate facilities, and the lack of reading rooms. We cannot do map work because we have no tables to put the maps on. We cannot make our own teaching aids using local materials because we have nowhere to store them. The geography room has no shutters, lockers or desks, and if it rains, water enters the class and we can do nothing. In addition, students come here as a last resort, with no interest. They come without stationery not even a pencil. The lecturers do not stimulate them because they are not well paid either. With a class of 120 there is no individual help given. Lecturing is not the best method for the below average, but we have limited time. We give them notes; those who follow can, and those who cannot are left behind. For fieldwork, if transport is available I take them to Jinja, Kakira sugar plantation, fisheries, industries. Otherwise they can visit a local saw mill, coffee factory or cotton ginnery near the college. These are graduates of a collapsing system, and, in fact, they need more training* (L (2), 22-8-1995).

I can confirm here that the situation of some buildings in NTC Kaliro is appalling, not only in classrooms but dormitories as well. There is no Geography room to speak of, let alone a store or office for the Department to show a visitor. The Geography Head of Department has a one square meter room as his office, where he sits without stretching. (Appendix 3) On average, lecturers were expected to effectively train one hundred and twenty student teachers. Similarly, the class in NTC Kaliro that I observed had one hundred students, some of whom had no desks.

This poor learning/teaching situation is confirmed by one of the directors:

> *The college is examination-oriented, therefore, with no textbooks and short contact hours, they give lectures to help the students pass. I have no chance to know what tutors give their student teachers in lecture rooms until school practice begins. That is when I notice how these student teachers prepare their lessons and how they teach Hence the student teachers are very poorly trained and the situation is deteriorating every year* (D (1), 12-10-1995).

Role models in schools: I also looked at the role that former schooling and educational experiences of the research students may have played in shaping their identity towards pedagogical practices. The majority of participants responded according to the following sentiment:

> *In my secondary education I experienced talk and chalk, map reading, and photograph interpretation. In University, I experienced talk and chalk, lecture and fieldwork. Methods of teaching were given to us in University in theory format with no demonstration. I use a lecture format because it is the best method with the absence of textbooks and time, so you lecture while they make notes* (L(2), 22-8-1995).

> *The prevailing methods of teaching in schools are chalk and talk, use of maps as a basic tool, photographs, essay writing, use of passages, illustrations, and research in the library. There are no teaching materials and no textbooks so it is difficult to use other methods* (L (3), 9-8-1995).

> *Teachers use lectures more than practical methods. Since they are using an examination syllabus, they are after making the children pass. Even with sample studies in textbooks, teachers do not have the capacity to relate it to the Ugandan situation* (AC, 2-10-1995).

Clearly, factors such as lack of teaching materials and the syndrome of examination cramming are seen as reasons for the dominant pedagogies of chalktalk and non-participatory teaching. In this regard, only one student teacher revealed an alternative experience:

> *There was provision for seminars in my school. Topics were selected for discussion and many schools would come together* (ST (1), 22-6-1995).

The students are given topics to be discussed in advance and some are actually presenters in such seminars.

Learner-centred pedagogy: Learner-centered pedagogies are advocated in new theories of learning/teaching (e.g. cooperative learning, constructivism, competence-based curriculum, to name a few) as being the most important in transforming education to make it more meaningful and relevant. It is transformative in that learning is more democratic and participatory, as opposed to the traditional expository methods of teaching which give a teacher absolute authority. Learner-centered methods are also advocated in teaching today because of their effectiveness (Adams and Hamm, 1996; court, 1992; Freire 1972; Giroux 1986; Graves 1983). Inquiry or learner-centered methods that utilize a combination of many activities involve: observations, recording of data, differentiating between facts and opinions, learning to be skeptical of one's own hypotheses and generalizations, taking and defending a position, searching for additional evidence, re-examining the validity of generalizations in light of new evidence and deeper insight, examining value conflicts and extending one's appreciation. Inquiry procedures work on the basis that one enjoys and learns best that which he/she believes in, and that which makes sense to her/him only after a serious consideration of alternatives and not with an emphasis on preconceived content. The student will be able to develop a feeling of humanness for society because he/she is viewing society through his own perspective. His/her own sense of self-worth is multiplied due to his investigative ability and self-critical/reflection.

As the above data indicate, many respondents in the study attributed the lack of use of learner-centred pedagogy, despite its endorsement in the syllabus, to a variety of institutional and systemic factors, including short contact hours between lecturers and student teachers, large classroom sizes, excessive stress on examinations, a lack of textbooks/materials, and poor role-modeling in Ugandan schools. Without disregarding these barriers as legitimate and serious, nevertheless an alternative paradigm on Geography teacher education would also explore possibilities for reforms that can alleviate to some degree these difficulties. For example, NTC directors could work together with the lecturers to find solutions to the problems they face. The change should not be directed only to increasing their salaries, but also to other aspects of the college.

Whatever teaching strategies or procedures are advocated for student teachers to use, ought to be practiced by the teacher educators in their own teaching of students. The students' stories of how they are taught demonstrates the fact that lecturers are also poorly equipped to use the methods they recommend on paper. Creating lecturing strategies can be used, for example, in combination with visual aids, dialogue questions and other stimulating techniques. Since the lecture method is admitted as less than desirable pedagogy, it can be more sparingly used in combination with cooperative methods in teacher training colleges. As problem-solving is advocated, students could be asked to participate in workshops focusing on how to prepare materials and organize learning experiences for pupils. Since pupils often learn from one another by verbal interaction, students should interact with one another in discussing experiences, whether this be a school or a college experience. (Graves 1978) Their own learning should be organized in groups where they not only learn what group work entails, but realize that mixed ability is a term which applies to them also.

At the classroom level, most of the student teachers interviewed and their schemes of work that I read indicated endorsement of a Socratic method of teaching. The majority of students I observed, however, were not using it in an interactive, collaborative and investigative manner as it is supposed to be (Overholser, 1992). The method, as used by Ugandan students, is very authoritative, with the teacher standing in front of 80-100 pupils asking questions, while at the same time commanding them to keep quiet. In contrast,for example, erosion by wind and rain can easily be taught using a Socratic method. The concept of sheet erosion is sometimes difficult to comprehend by students. The teacher can question the student by asking him/her what is observed in cultivated areas when it rains, especially on slopes of hills or undulating plains. If it is a rural school, the teacher can take the students out to such spots; in urban schools, sheet erosion can also be observed in the outskirts of the city. For example, I used to observe sheet erosion on the slopes of

Makerere Hill and Old Kampala Hill especially after cultivation. The students can observe wind blowing soil from cultivated areas. The students here can use their experience to understand such concepts of erosion and will be able to define it later. They will also encouraged to suggest solutions to reduce that kind of erosion drawing on their experiences.

School Practice (Practicum)

According to Beauchamp (1994), school practice is a course of study specially designed for the preparation of teachers, which involves the supervised practical application of previously studied theory. There are two main purposes of school practice: for students to practice teaching, and the student teachers to reflect on practice teaching. It is important however not to view teaching practice as merely technical. The students' teaching become more of a reinforcement of other education and learning rather than education itself, that is, reflection and action or *praxis*. If school practice is used for the application of previously studied educational theory it tends to exclude one of the most important people in the education of the prospective teacher -- the cooperating teacher.

In Uganda, finances determine the period spent in the field by lecturers supervising students. In NTCs this is a yearly event, and students do school practice in their first and second year of training. The official length is six weeks but this changes every year. Sometimes it is four weeks or even shorter according to availability of funds. The amount of money available for lecturers' allowances determines the length of supervision.

The colleges have a handout (printed in 1989) which is distributed to students explaining how lesson plans are assessed during school practice. (Appendix 9) As mentioned above, student teachers are encouraged to use learner-centered methods of teaching and are given a handout of some of these methods although they are not used in their school practice.

The instructions given in the above-mentioned document diminish however the teachers' initiative and creativity because they are too restrictive. The teacher is instructed to use books to transmit facts into his/her students, and any practical work is for the demonstration of geographical skills. Holistic learning is not encouraged in the classrooms, so that knowledge is received in bits and pieces. For example, I observed a student in Unique Student Academy Mbarara who was teaching about New York City. He used Mbarara slums to help students understand ghettoes of New York. The teaching would have been holistic if he used the student's experiences (some of the students in the class actually live in these Mbarara slums). The students could have narrated why they or their parents/relatives left the village to go to Mbarara town. The students could have narrated their living conditions such as availability of social services, economic activities and other kinds of activities like crime and other forms of structural violence. Issues of unequal distribution of resources in the country by the elites may then have arisen, and corruption at local, national and international levels posed as possible factors. The disparity between the north and south countries would also have been debated. Role playing of life in a slum could have been demonstrated by the students in the class.

Instead of these transformative possibilities, the student teacher was condemning the slums/ghettos as a problem to the city council. The students in his class were not motivated to talk about the realities of poverty and misery in the slums of Mbarara town. The above instructions hence undermine the claim by lecturers that they encourage their students to use learner-centered, inquiry methods of teaching.

According to the students' schemes of work and the sample scheme of work I examined (Appendix 9), the students are supposed to arrange their topics starting with the physical background (which includes location, relief, climate, soils and vegetation) followed by the human activities. Thus a student teaching about New York has to teach the physical features first which determine the functions of New York. A person teaching cocoa production in Ghana has to start with the physical background which determines cocoa growing in that region. This is an environmental deterministic paradigm of teaching geography.

The objectives for both the lesson plans and the schemes of work are short, measurable and achievable. The students are also required to state the objectives in performance terms, indicating conditions under which the behavior is to occur and in statements that can be understood by other people. This framework renders invisible the teacher's daily responsiveness and thought. With all the procedures laid down, the teacher is regarded as being likely to stick to the rule of the book which will close opportunities for creative and spontaneous work. Behavioural objectives treat children as empty tins and their actions are explained in behavioural terminology. This framework diminishes children, seeing them incapable of making complex meanings, decisions or choices to change their ways of acting. Behavioural objectives are too much associated with easily measurable and relatively trivial content. An example of this would be the statement, "by the end of the period the pupils will be able to list the main exports of Kenya." If such a topic was to be discussed, the students may not analyze the impact of export production on the lives of people. The unequal bargaining power of Kenya in the world market where such exports are sold might not be analyzed or given any importance, because the objective is to list exports. This means higher level outcomes of such lessons are not emphasized. I was able to talk with student teachers from NTC Kaliro during their first week of school practice (commonly referred to as orientation week). Their anxiety surrounding this week was focused on how to make good schemes of work with appropriate aims and objectives for the three weeks ahead.

The content column for most students is almost empty because they do not have appropriate textbooks (especially in private schools). Some students listed the skills expected to be developed and some did not. The most commonly used methods of teaching by students of both colleges are discussion, Socratic technique, talk and chalk, and discovery. Apparently these are the only methods shown on the sample scheme, students' schemes of work, and lesson plans. All the students I talked to after watching their lessons could not give a satisfactory explanation of what a discovery method is and how to use it; the geography lecturers did not have a satisfactory explanation of what "discovery methods" are either. The column on teaching aids was filled with items like chalkboards, wall maps, and manila charts. (Appendix 9) Although these items are listed, only the chalkboard is available in most of the schools I visited.

The students were worried that they had no teaching aids, and do not realize that aids are built by the teacher to fit that teacher's own intent and activities. The only item noted under the reference column is the listing of a few books. All the students I saw in this first week were unsettled and in a state of panic because some of them, especially in newly established schools, did not have reference books. The administration of some schools, such as Jinja Secondary School, helped the student teachers with some teaching materials such as books and manila paper.

The above analysis does not try, however, to underestimate the barriers and difficulties that student teachers and college lecturer do face in the present context of Ugandan educational development. In response to the issue of school practice experience, many students said:

> *Methods given to us in college are alright, but the number of pupils in secondary schools are too great and therefore it is difficult to apply some methods* (ST (1), 23-6-1995).

Some students say they do not have enough content, while the majority find it difficult to use methods learned in college due to large numbers and poor facilities in secondary schools.

> *There is a shortage of books in schools, making it difficult to use some methods we have learned. In recently established schools there are poor facilities; for example there are no maps or atlases to use to show children the localities. Private schools have part-timers who are just after making money. They do not have a teaching syllabus and teaching materials so you have to make your own, sometimes borrowing from neighbouring schools when you arrive* (ST (2), 27-6-1995).

The problems above were also raised by one lecturer:

> *The students are supervised for two weeks only. There is no time to help them improve on the methods of teaching. Large numbers of students per lecturer do not allow us to see them more than once. The schools where they do their teaching practice are not adequately facilitated. There are no books, the classes are big, the children are undisciplined, and administration is sometimes uncooperative. Some schools do not have qualified teachers, so licensed teachers cannot help the student teachers, especially in rural schools. In urban schools, the qualified teachers do not have the time to help our students. There is no micro-teaching in the college because of large classes. If school practice was extended to eight weeks instead of four it would help us train these teachers better* (L (3), 9-8-1995).

The schools where the students do their school practice are also poorly equipped in term of physical and human resources, whether government aided or private. In some schools, the issue of "undisciplined or "reluctant: students is raised:

> *In private schools, students admitted are normally those chased from government schools for lack of discipline and poor academic performance. The teachers sometimes collaborate in identifying for us the 'stubborn' students* (ST (4), 5-7-1995).

The student teachers in newly established private schools are assisting owners of such schools to establish a teaching routine as part-timers are often unreliable. The student teachers also raised a concern for "undisciplined", "stubborn" and "academically weak" students in private schools. These schools lack well-established teaching syllabuses and teaching materials essential to Geography education. Some of the private schools I visited were originally shops or storage rooms and some classrooms should not have been used as such. Even though the students I talked to mention that teachers help them to identify stubborn students, this is not a common practice in most schools. Some student teachers are ill-equipped to face such problems, but one solution may be to get to know the pupils better as individuals and learn more about their values and motivations. In Bristol University (Graves 1978), for example, the 'Hillview Project' enabled student teachers to be attached to a class of fourth year secondary school pupils and spend one afternoon a week with them outside the school. This helps the student teachers to understand the group dynamics of classroom situations. However, the situation in Uganda may not allow such an innovation to occur easily since most teacher training colleges are isolated from secondary schools. Secondly, the secondary schools which might be nearby may have restrictive rules which would not allow student teachers to meet the children easily.

Other problems reported by students concerned the administrators in secondary schools:

> *Some administrators in these secondary schools do not care, they just check to see if classes are taught and that is all* (ST (4), 5-7-1995).
>
> *Geography teachers in secondary schools do not have enough time to interact with us. They teach in many schools where they are supposed to fulfill their timetables in each* (ST (2), 27-6-1995).

The administrators are accused of not showing interest in what goes on except to see that classes are occupied. The students also lack the support of qualified geography teachers because of time limitations. Inadequate funds is one of the reasons given by the directors for poor school practice supervision:

> *Funds given to us for hiring vehicles is sh. 50,000/= per day for four tutors. Vehicle owners demand more than that per day, so we give it to the tutors and they decide what to do with it. This year they received a night allowance of 50,000/= per day and this boosted their morale* (D (2), 25-10-1995).

This was confirmed by the Commissioner in charge of NTCs :

> *School practice time is short because of finances. The treasury is scared of the bill for the ten colleges presented to them. This is a big problem and we do not know how to deal with it. We receive money from the treasury for all the colleges and then give each its share for transport and allowances. The lecturers are given amounts according to the number of days they supervise. Money for students is sh. 350/= per day, which is not enough but accommodation should be free. There should be a pre-arrangement made with the schools where they do their school practice so that they are catered for in accommodation* (AC (2), 11-10-1995).

The provisions made in the program for supervisor-student contact are far fewer than what is necessary in order to accomplish the ambitious goals set for supervisors. The actual time for supervision, according to the lecturers, is only two weeks and, since the students are too numerous, they cannot be supervised more than twice. The Commissioner admits there is not enough money for both lecturers and student teachers to do a satisfactory teaching practice. The lecturers also complain that first year students are not adequately prepared for their first school practice:

> *Year One goes out for school practice with no idea of classroom practice. The Ministry of Education and Sports doesn't give us enough money to enable us to see them more than two times..... Distances to be traveled are long, and schools are scattered in rural areas where there is no transport, so we depend on 'boda boda' (hired bicycles) or walking. Secondly, Term Two has a lot of activities in secondary schools like sports and music which disrupt school practice. Some schools are too strict and cannot adjust their timetables in favour of school practice students. The administrative authorities of some schools are willing in terms of coordinators if money was available, so that subject teachers could help in guiding these students. In some schools, students have to use their own resources like manila paper, textbooks, and other essential materials* (L (1), 22-8-1995).

The lecturers raise the issue of long distances traveled on foot or hired bicycles in rural areas. I actually watched a number of teachers walking up and down the hills of Bushenyi looking for student teachers to supervise. School practice is done in the second term when secondary schools are busy preparing for national music and sports festivals, which reduces time for school practice.. He suggests that if money was available, local coordinators (qualified teachers in such schools) would be paid to assist in school supervision. One lecturer made this observation concerning geography student teachers in particular:

> *I am not satisfied with the way we train our geography teachers; that is one of my problems. If it was possible, I would supervise the students I trained in the college. These students receive strangers who later conflict with the students. The physics tutor tells a geography student something different from what he was taught in a geography class. This is a limitation to effective training of geography teachers and this is due to: (1) social economic factors. There are not enough funds to facilitate me to see all my geography students in all schools; (2) When we see a student once, we are not able to follow him and see what improvement was made. There is not even time to discuss the lesson after supervising it. We are supposed to see them twice but it is commonly only once. Some teachers in private rural schools are not qualified, that is, primary teachers set up secondary schools. They cannot guide our students. Sometimes students do school practices in schools with no tables, books, etc. Students end up in such schools because the colleges have large numbers of student teachers. There is a need to extend the training period for Grade Five teachers* (L (3), (22-8-1995).

Time makes it difficult for supervisors to develop and nurture the kinds of relationships with their students which are needed for the accomplishment of their goals.

Last but not least, a number of male student teachers complained that school practice is not fairly marked and graded, as shown in the statement below:

> *Student teachers who perform well ' love' lecturers; for example, a female student who got an 'A' in school practice was suspected to ` love' a lecturer* (ST (5), 6-7-1995).

In the context of Ugandan society with patriarchal norms, it is not surprising that this kind of claim was made by the students. Women are often treated as "inferior beings" who have to be helped by a man in order to achieve anything, however highly educated they are.

It is appropriate now to look at use of evaluation sheets/forms which a lecturer uses to allocate marks to a student teacher on school practice. I observed that during the second week of school practice the lecturers started supervising the student teachers. I was able to talk to the students of NTC Kaliro in Jinja and Iganga district schools. The students I talked to were not actually ready for assessment in the second week. The schemes of work were not ready and the lesson plans were abruptly made a few minutes before the class started. Embedded within the context of this form is the belief that teachers can be evaluated almost immediately after one or two weeks after joining a school. This focus on immediate evaluation of lessons reinforces the notion of lessons as products to be marketed and sold to generally passive consumers. The teaching fostered by a form which focuses on immediate evaluation is cognitive or straight recall teaching.

The lecturers are able to see a few students each week and emphasis is on final year students who must be assessed to get marks. The lecturers, therefore, use the evaluation form in the classrooms and observe the lessons while allocating marks for each category on the form. This form reflects a one-way nature; the student is not a colleague according to this form. After the lesson, the students are anxious to find out whether they have performed well and if not, they want to know for the purpose of improving during the second observation and evaluation. The lecturers have no time to find out under what circumstances the student teacher is working because he/she is under pressure to supervise as many students as possible. Secondly, the form she/he is using does not situate a student in the social, economic and political context of a particular school. Most of the lecturers were either walking or using boda boda between various schools located within urban areas. In rural areas, schools are widely scattered and roads are very poor making it difficult for lecturers to reach their students in time. Boda bodas were again used because there is no public transport in such areas. I was able to watch one lecturer climbing a hill on foot on a very hot day to go and supervise two students. She was sweating and tired and yet she had to evaluate both students in the remaining forty minutes before the school closed.

The form includes concepts such as 'suitability, appropriateness, fair, reasonable, acceptable, adequate, excellent, good etc. These people have a variety of different notions about such basic terminology as reasonable, acceptable, clarity, initiatives, etc. I asked the geography lecturers after school practice how they allocated marks using those terms if they are only able to see a student once, and sometimes only for twenty minutes. They all said they were not happy with this kind of assessment, but could do nothing about it.

The form assumes that the lecturers understand what makes a good teacher. However, good teachers whom students enjoy and those from whom they learn a lot are hardly the same. For example, some teachers are considered to be good by students because of their personality, while some are judged as being good because they give notes. Furthermore, the categories on the form tend to emphasize that the goal of the teacher's job is to ensure the 'right and good' behavior of the student (Beauchamp; 1994). Education in this form is understood not through the interaction of teacher and students. For example the teacher has to formulate appropriate objectives, perform well in introducing the lesson, use of textbooks, teaching aids, voice, mannerism are all skills of a teacher which are evaluated. The pupils he/she is teaching are not evaluated, nor are his subject lecturers. The student teachers (group, four) later told me that they were told that a good teacher must have more knowledge than his students in order to be respected and obeyed. The form reduces education to only one action, that of a teacher doing and for the student teacher is to learn how to be the authority. Finally, the form encourages the teacher to see his/her job as technical (Sections Six, Seven, and Eight) preparing "perfect" lesson plans. The student teachers were actually apprehensive of students likely to challenge them or behaving badly, because they believed the lecturers would mark them down for not being able to control the class. In Jinja S.S. (26-6-1995) one of the student teachers I was observing left the class after twenty minutes and never returned because, he told me later, that the students were becoming uncontrollable and he feared getting bad marks. He thought that I was also allocating marks for his final grade.

The form paints the picture of a classroom that does not exist in reality. For example, constructing firm divisions of lessons and procedures, and having ideas of divisions of time and pace beforehand, a teacher must be able to assess the correct amount of time which certain activities will take, as well as being able to predict student reactions (Sections Eight, Nine, Ten and Eleven). One student teacher (from Group One) asked me to help her sequence her lesson plan so that it strictly fit in the forty minutes because she was worried that if it was too short or too long, she would be marked down. Planning also assumes that all students will react or respond to a particular content in similar predictable ways. As Beauchamp (1994) has argued in criticizing a technical orientation to assessing teaching practicum:

> The more focus is on the teacher and the teacher's presentation of content, the less important student's needs and interests become. The more carved in stone a teacher's plans become, the more that teacher will want to avoid knowing what students think and believe (Beauchamp, p.24).

Through the form, the student teacher is asked to accept and act on supervisory suggestions. While the student teacher definitely lacks professional experience, the idea that the supervisor (a term of status) is always correct and that those suggestions must be attended to needs to be challenged. The student teacher, first of all, is supposed to be fully in charge of a whole host of educational experiences in the classroom. On the other hand, the student teacher can never be in charge because he/she has to follow rules and regulations as well as get used to the culture already existing in the school and classrooms before she/he can make appropriate decisions. For example, within the two weeks, she/he cannot change the seating arrangement or set new classroom rules concerning discipline, and this makes a teacher in a school with stubborn children very nervous. Another example involves a female student teacher at Kiribaki Secondary School in Iganga district who would almost sink in the chair whenever two of the biggest boys stood up to challenge her over issues of forest conservation.

The powerful nature of evaluation sets up a situation where the actual teaching can become secondary to good evaluation. During my first week in Mbarara, the student teachers were at first reluctant to be supervised because they feared I was going to give them marks. It was not until I had observed one student at the Unique Students Academy that others accepted to be observed. (Musasizi,E. Lesson, 4-7-1995) Later they explained to me that they do not accept to be supervised unless a lesson is "perfect" for evaluation. Perfect here means that they are applying what the lecturers instructed them to do. The student teacher's main concern is not teaching the students, but rather figuring out the lecturers; the lecturers become "problems" for the student teachers to solve. The form does not provide for a cooperating teacher because they are not used in Uganda.

The student teachers I interviewed are of the view that they have to work within the limits of knowledge given by their lecturers, textbooks and resources available in the schools where they do their school practice. In sum, the practicum training they receive does not leave much room for initiative and creativity. Clearly, the NTC Geography school practicum diminishes the possibilities for an inquiry dimension which as Ziechner(1987) has argued, help students situate schools, curriculum and pedagogy within their social, cultural and historical context; understand the socially constructed nature of school knowledge and of schools; and assist students in becoming more proficient at skills of inquiry. Given the barriers already cited, improving the school practicum component of the Geography program will need various solutions, including more funding for lecturers to visit their student teachers. The preparation of teachers can also be seen as a partnership between the schools and the colleges or universities (Graves 1978). Hence, the colleges will have to become more practical and negotiate with administrators and qualified teachers in secondary schools to help supervise the students.

Finally, school practice can be improved by making it an integral component of the total teacher training program, as is increasingly the case in North teacher education institutions. The students should be continuously assessed, not necessarily to award marks but to get feedback and to improve on the teaching skills. Student teachers could be introduced to the complexities of teaching gradually from year one, which would require the support of teachers and administrators in secondary schools. In the initial field experiences, school practice is intended to provide an understanding of schooling in its political, social, economic and cultural contexts. Seminars and discussions are arranged around such issues as: What is schooling? What do students learn in school? What are the manifestations and sources of a hidden, null and overt curriculum? What are the benefits of schooling for students and society? How do issues of ethnicity, gender, and class mediate the personal and social effects of teaching and schooling? Through experience in fieldwork, the students can examine preconceived notions of teaching and schooling. The student teachers should be encouraged to write journals noting down what they observe (Amaline and Hoover; 1989). Successive practicum experiences can then build on an integrated view of theory and practice in teaching a discipline such as Geography with cooperating school teachers, college lecturers and student teachers collaborating in mutually beneficial ways.

The present educational situation in Uganda may not allow colleges to fully or quickly implement such a holistic and potentially transformative paradigm of school practicum, but it could be used as an example where some aspects of good school practice assessment are copied.. If the number of student teachers in NTCs was reduced to a reasonable manageable figure, individual attention could be paid to them by lecturers and school facilitators during their final school practices. Refresher in service courses would also be necessary for both lecturers and secondary school teachers to update them in learner-centered pedagogy.

Examinations and Assessment

> *We are teaching for a job; teachers work to earn money. Teachers do not see themselves as making an impact on students, rather they help make them pass examinations. The same applies to lecturers training teachers. The college is also examination-oriented according to the syllabus we are using here. They answer questions theoretically to pass examinations* (D(1), 18-10-1995).

> *In geography there are topics which show how man has exploited and over-exploited the environment, leading to a depletion of resources which makes him lead a miserable life. Many features described can be seen at home. It creates awareness of soil erosion, methods of agriculture, etc. Otherwise we just teach theory to fulfill the syllabus requirements and children do not learn much beyond what I have mentioned (above)* (L (3), 4-9-1995).

> *We teach a syllabus to make pupils pass examinations* (ST (4), 4-7-1995).

> *The problem here is that education is examination-oriented, so many schools start an examination syllabus right from senior one. They cannot do anything in-depth so by the time they finish senior four they have forgotten everything. They have no geographical background, and just start on the examination syllabus; otherwise geography could contribute much to the education of the child* (GP (2), 3-8-1995).

According to these responses, banking types of teaching, which do not allow for the participation of students, are predominantly used in schools and colleges . Students, in most cases, recite what is included in the curriculum and what appears in the examinations. The external examinations are so important that the basic geographical concepts, knowledge and skills which are supposed to be developed in the students from senior one are not actually taught. While one can question the fairness of the above Director's attributing teacher and lecturers' professional motivations as being principally financial, most respondents did identify a technical emphasis in the work of college lecturers or schoolteachers in teaching Geography. This is why the participants say their primary aim is to help students pass their examinations, a goal which is unlikely to empower students to raise critical issues and questions about their curriculum and its implications for societal development .

Examinations set by the Uganda National Examinations Board (UNEB) determine to a great extent what is taught and examined in the NTCs. (Appendix 5) Therefore, this section will first present the importance of these examinations to the students and lecturers as well as to Ministry officials. At the moment, syllabus 273 is used at the end of senior four and it is the same framework used in NTCs. The minority of students' responses were typified by the following statements:

> *The children need to get knowledge to pass the examinations which will allow them to go to A-level, then to University. If you go into other things which do not appear in examinations, then you are considered irrelevant. We aim at earning a living, so we concentrate on what will come in examinations* (ST (4), 5-7-1995).

> *The teacher who taught us said, 'Do not study China, as you can pass without answering a question about China'* (ST (1), 22-6-1995).

> *We went to Lugazi to see a sugar plantation and factory because the teacher suspected a question on plantation agriculture would be in the external examinations* (ST (2), 26-6-1995).

> *We have an examination-oriented education system, so we teach the examination syllabus right from senior one. The school teaching syllabus is also developed around the examination syllabus* (GP (4), 16-8-1995)

To a certain extent, examinations at the end of O-levels determine whether a person will go to university or not. As mentioned earlier, secondary school teachers feel that their duty is to prepare students to go to university and not to return to the local communities. Since the curriculum is wide and there is little time to cover what is necessary for the examination, lecturers and teachers who teach this syllabus teach only those topics they suspect will appear in the examinations.

Examiners cannot set questions on everything even if they did a choice of questions, and this allows students to avoid those topics on which they feel the weakest. It is assumed that if the examination results are bad, it reflects on the quality of teaching. This makes the teachers equally anxious as their students, resulting in such statements as the one above about China. China is an alternative section to North America and the Rhine Lands. However, as there is no textbook nor up-to-date information on China in Uganda, it is not taught in schools. Spotting topics that might appear in examinations is the order of the day, and the fact that the syllabus does not change makes it easy for the teachers and students to analyze past papers and spot areas which must appear every year, in comparison to those that are less frequent but have a predictable pattern of appearance.
As a member of the NCDC Geography panel responded:

> *There is an emphasis on passing examinations at the expense of knowledge. The examination situation is getting worse. They used to depend on experienced people but recently, in order to avoid linkage, U.N.E.B. has employed people who have been teaching geography but do not have the experience of designing and setting examinations. Some questions are vague, and mistakes appear after the paper has been written. The questions tend to focus on certain popular areas and leave out certain areas, so coverage is not good* (GP (4), 7-8-1995).

Members of the geography panel are in a position to change this course of event, but it seems they have an attitude of resignation in what appears to be an overwhelming condition in Uganda's education system. There is concern in the above response that the acquisition of knowledge is no longer the aim of education, but, rather, passing the examinations. Focusing questions on certain popular areas makes it possible to spot questions, and members of the geography panel have passively accepted the situation. UNEB officers actually set these examinations which affect the content and methods used. One of the UNEB officers responded:

> *Examinations are set to tease the student's academic competency. Academic questions do not bring out the knowledge and skills which the curriculum tries to aim at. The curriculum does not include topics which reflect local conditions. The aim of the examinations is to see who passes and fails for the purpose of selection for higher education, not to go and participate in society. Questions are over-simplified for the O-level, and include naming, locating and the recall of knowledge. Part 11 just requires some information, though not necessarily geographical knowledge* (UO (1), 29-8-1995).

.I also asked the UNEB officers about the criteria used in designing the questions and one said:

> *We follow objectives for teaching geography, that is, testable objectives at different levels of cognitive abilities. We spread questions to tap knowledge, comprehension, application, analysis, synthesis and evaluation. We are guided by weighing various topics in the syllabus. The amount set depends on the weight of the topic, that is, it depends on duration and importance in terms of educational objectives. Some special skills that are to be tapped are fieldwork, map reading, and photograph interpretation. This is psychomotor domain; we try to spread it in domains. The training of teachers has not been adequate. A lot of effort is desired. There are no refresher courses for older teachers. There are areas left out by teachers, for example, discussing China* (UO (2), 23-10-1995).

Poor training of teachers and a lack of refresher courses for practicing teachers is pointed out by this officer as the reason why some topics in the syllabus are not taught. The criteria used in the setting and selection of questions for O-level examinations was fully explained by the second officer. They use Bloom's Taxonomy of Educational Objectives, which provides a universal view of the possible content to be examined as well as the complexities involved. It highlights the range of abilities which should be considered in both curriculum planning and assessment. However, it is difficult to establish a consensus as to which category a particular behavior belongs. The situation is made worse by the fact that different pupils come to the examinations having passed through different experiences. For a particular pupil, it may be a knowledge of recall questions, for another it may demand application. The recall of things can be difficult if there is a lot to be remembered, the way in which the knowledge has been structured is loose, and the recall of facts does not appeal to the pupil as a fruitful way of using his mind. Lastly, (tightly) specifying objectives involves a particular philosophy of education that emphasizes correct answers and conformity. (Mersden 1976) Process objectives where the outcome is not specified emerges through educational encounters (situations in which students progressively work on tasks or problems of the teaching process). Using the taxonomy objectives also leaves out attitudes and values that together make up the affective domain. Attitudes and values are less tangible and difficult to interpret and assess, but this does not mean they should be left out. (Mersden, 1976; Bligh, 1990) It gives proper credit to those capable of heterodox yet creative thought.

The O-level examinations actually require a child to do a simple, objective paper on East Africa with questions covering recall, analysis, application, comprehension and synthesis of knowledge. An example of this is the O-level geography examination of 1991, Paper One, Part One, Objective Type Questions One, Fifteen, Nineteen and Twenty. Number One requires a simple recall of knowledge; Number Fifteen is a combination of comprehension and recall, whereas Number Twenty is analysis and synthesis. This also illustrates the difficulty of using Bloom's Taxonomy in that categories overlap.

The content of the regional paper 273/2 systematically covers physical geography, human and economic geography. I was able to look at ten examination papers from 1985 to 1995; the questions simply required a child to analyze statistics, read and interpret photographs and maps, describe and explain economic activities. Production of cash crops, mining, pastoralism, development schemes, industrialization, urbanization, communications and trade, and tourism are the main topics covered in this paper. Wherever possible comparisons are made; for example, comparing wheat growing in Canada and Uganda, to fishing in Canada and Uganda. The essay questions appear also but often no more than a recall of knowledge. The section on compulsory map work and photographic interpretation also requires simple skills. Examples are the papers of 1985 and 1991 (Appendix 8) Part II; map work, photographic interpretation and East Africa. The compulsory question is on map work; the first question in both papers sub-sections (a) and (b) required a student to read and state grid references for a particular place. The rest of question number one requires a student to calculate distances, bearings, draw cross-sections, identify relief and settlement patterns, as well as state main transport means.

Using the two papers above as examples, the photographic interpretation question is again very simple, with sub-questions (b) and (c) requiring a child to recall knowledge to answer them. In 1985, there was no photograph, but just a drawing under the heading 'photograph'. The examination questions I looked at were from 1985 to 1995, and all of them assessed place knowledge, map skills and accurate reproduction of previously learned explanations. As one UNEB official clearly stated, they serve the purpose of selecting the few for higher education. Most importantly, in terms of a transformative paradigm of Geography, knowledge and skills assessed are not related to the local conditions and hence will fail to serve the needs of local citizens of Uganda.

In the NTCs the questions in the examinations are set in a such way that they resemble the UNEB type of questions to ensure that teachers become familiar with O-level examinations. The lecturers in these colleges are not sure whether this is best for their students. The majority said:

> *We participate in setting examinations for our students' teachers but they are moderated at ITEK. Questions which are not examined at secondary school levels are left out by ITEK. We set examinations but we have no final say. They adjust according to what they feel is right for the NTC* (L (4), 9-8-1995).
>
> *We set examinations according to what may appear in O-level examinations so that the teachers are prepared for it. Some questions are discarded at ITEK. The reason they give is that in secondary schools such things do not appear* (L (1), 9-8-1995).

The kind of participation cited here is not democratic in that the lecturers cannot decide what will appear in the examinations for the students they teach. ITEK has absolute authority over the examinations in NTCs. The O-level examinations, in addition to a certain extent, determine examination questions in NTCs as mentioned above and below:

> *NTC questions are like those of the O-level; we set them and ITEK moderates them. The questions set are so simple that bright O-level children can answer those questions set for NTC. I wonder whether the moderators are professionals. ITEK. even produces shallow marking schemes which are out of point in some questions. We are allowed to adjust but the moderators might not accept it. We are supposed to accept instructions passively* (L (2), 22-8-1995).

The above response questions the professional integrity of the ITEK examiners, but since the system is undemocratic and authoritarian, this particular lecturer said he dare not publicly raise such an issue to ensure the safety of his job. An official from ITEK responded however that NTC lecturers set "shallow" questions not to the standard of diploma students. Although the official said there were samples of such questions in ITEK I was not able to access them for unknown reasons.

ITEK and NTCs could find a way of making the system more democratic so that UNEB examinations do not dictate what is taught and assessed in NTCs. The lecturers are too restricted in this system and their initiatives and creativity diminished by ITEK which decides alone what will appear in examinations. The economic, social, political and cultural context of these ten NTCs is quite different and, therefore, students should not face the same examinations as a means of control. Other methods of testing and evaluation suitable for each college can be used instead of a highly centralized system of external examinations. For example, the use of external examiners selected individually by each college will ensure that questions set are appropriate. The checking of materials available in each college, and the qualifications of lecturers is another method that can be used.

Examinations in Uganda are used to grade students along a standard measure and this is also practiced in NTCs. The desire to rank people in order of merit is a conceptual mistake; different people have different qualities and should be valued for what they are. There are many forms of intelligence, some of which do not necessarily mean academic cognitive work. Examinations or evaluations in general should take into consideration various forms of intelligence in people, making it possible to devise means of measuring multiple intelligence. The temptation to put people along a single line should be resisted by both lecturers and students of NTCs.

In the area of map work and photographic interpretation, the examination questions are too elementary for diploma students. The examinations for the years 1991/92 and 1993/94, Paper 1, section A, questions one and two are compulsory, map work and photographic interpretation. Like the O-level questions, the students are required to read and state six-figure grid references, measure distances, bearings, draw sketch maps, describe physical features, identify settlement infrastructure, economic activities and the problems associated with them. The only difference from the O-level paper is that the candidate in these two years' examinations (1991/92; 1992/93) was asked to show how she/he would use such a photograph to teach the 273 syllabus in section four and section three respectively. The questions tend to assess rote-learning abilities rather than creativity and original thought. The question on photographic interpretation is the same as the O-level and it requires the student to orientate the photograph, identify the human activities, physical features, etc. NTC students should have a wider knowledge of the environment around them and the world at large to enable them to guide the students they will later teach.

The methods paper concentrates on testing students on their knowledge of teaching methods like developing skills and attitudes, the use of textbooks, fieldwork, geography club, games and simulations, group discussion, weather observation, problems of learning geography, and teaching physical geography. As well, they test on students' knowledge of the history of geography as a discipline, sample studies, schemes of work and lesson plans, evaluation in geography, making a geography room and a geography club in schools. Although they are written on paper, these methods are not practiced, as is clearly reported by the participants.

Finally, the disadvantage with relying too heavily on end of course examinations is that it gives no credit for work done earlier by students and reduces the possibilities of feedback to students about their performance. Students may do very little work for much of the course, and then concentrate their efforts into a short period just prior to the final tests. To combat some of the shortcomings of the current examination systems used in NTCs, other methods of testing hence could be explored, such as "seen ", "open book" and "take home" examinations. Oral skills can be examined through a viva, but are better assessed through observations of classroom presentations, assessed games and simulations, and other forms of group learning. (Bligh, 1990; Price, 1989; Feller, 1994; Pope, 1989). Currently, oral examinations of this nature are not mentioned at all in the above responses.

National Teachers Colleges admit students who are mature enough to use the methods above. The only shortcoming may be shortage of reading materials like textbooks, magazines, and newspapers . Secondly in Uganda English is a second language to all students and, therefore, those who are not fluent are likely to suffer. It should also be noted that the present curriculum does include some continuos assessment strategies. A few students interviewed said that there are at least two course work assignments of geography (two from other subjects as well) However, most of them are due at almost the same time thus putting a lot of pressure on the students. There is also a fieldwork project as earlier discussed in Chapter Four.. Nevertheless, the data overall suggest that the pedagogical assumptions and practices embodied in the examination and assessment system employed in the NTC Geography program tend to stress a technical, positivist orientation to teaching and learning. At the same time, attitudes and practices more consistent with a transformative paradigm of education, whether Geography or other discipline, are considerably diminished.

Fieldwork

Fieldwork is defined as an area or zone within a subject where supervised learning can take place via first hand experience. Fieldwork as a method of teaching has a very important role to play in revealing reality to the students in terms of the physical and human environment, which they can compare with theory learned in class. It develops the students' skills of observation, recording and analyzing data. It also creates awareness, understanding, concern, and eventual responsibility for real places which is important for environment education. In this regard, the majority of participants responded as follows:

> *Fieldwork in my school was regarded as time consuming, expensive, and it appeared to have no value. We just moved around the school. At A-level we again moved around the school. I didn't know anything called fieldwork in my secondary education* (ST (1), 22-6-1995).

> *I use map reading, photograph interpretation, fieldwork, use of resource persons, and pupil-centered methods. Fieldwork is one of the most expensive in terms of money and time. In ITEK. we do a short fieldwork in Kampala. Residential fieldwork is most effective. Experience of lecturers matters, and most are poorly paid, morale is very low, and they do not read books* (GP (4), 16-8-1995).

A few think it was done for examination purposes:

> *We had just finished a topic on plantation agriculture in class, so we visited Lugazi. We suspected a question on plantation agriculture was coming. That is why our teacher took us to see this sugar cane plantation. We looked at the processing of sugar, the contribution of the estate to the nation's economy and government assistance to the factory. We also looked at problems faced by the factory owner* (ST (2), 26-6-1995).

To a few students fieldwork is an outing intended for enjoyment, not learning, and it is financial gain to the lecturers.

> *Fieldwork, not actually fieldwork, as we wouldn't go out to study. It was an outing to enjoy. We were taken to an industry and observed it without learning what was taking place. Teachers tended to avoid it because it was time consuming. The teachers wanted to go far from the school so that they gained financially. They avoided 2 km from the school for fieldwork since no per diem is given to them for such short distances* (ST (4), 5-7-1995).

One participant below, however, gave other reasons why fieldwork is not used in geography teaching:

> *I experienced fieldwork, use of films, talk and chalk, and many others. However, today if I give a Grade Five teacher a class to teach map work, he/she will teach it theoretically, in isolation; they do not know anything! It is difficult to organize fieldwork without a truck, and it disturbs the timetable. It is assumed that children know the conditions of people in rural and urban areas, so that is why we go to factories, plantations, and visit physical features not common to them. Teaching about people is sociology not geography* (GP (2), 3-8-1995).

A minority feel however that since it is not compulsory in O-level examinations, the lecturers do not bother to teach it (ST (5), 6-7-1995).

The participants' responses above imply that they go on a fieldwork trip without clearly understanding why they are doing a field study. The manner in which it is conducted gives the impression to some students that it is of no value and that they are doing it simply to pass time. Some visited a sugar plantation, while others visited a factory or moved around the school. The majority, however, said that fieldwork means traveling far from the school or college. It is a way of enjoying rather than learning, and as one student put it "the lecturers gained financially"; if there is no such gain, then there is no fieldwork. Despite these limitations in the way fieldwork has been undertaken in the current Geography program, a transformative paradigm would see opportunities to integrate fieldwork in ways that can help students better understand local and national realities of underdevelopment, and other global education issues such as structural inequalities, environmental destruction, human rights violations and cultural domination.

Language

Geographical education needs to be developed with the use of all possible forms of communication, particularly with spoken and written language. Language helps us to structure our thinking and be precise about our thoughts in writing so they may effectively be communicated. We name concepts and commonly express our rules and problems in language. In Uganda the official language is English which is also used in education. To the majority of people it is a second language acquired in upper primary especially in rural schools. One member of the geography panel feels that language is a hindrance to learning for most children:

> *Teachers use lecture methods because it is easier to use, since they do not have textbooks. Children in rural schools have poor English, and they cannot express themselves, making it difficult to use other methods of teaching. It is difficult to teach in rural schools because children cannot talk English. Students do not grasp it properly; as English is not natural to them ,it is difficult for them to understand* (GP (2), 3-8-1995).

The issue of language was brought up by a few officers who noticed the disparity between urban and rural children. Language is used constructively in oral work, conversing in small groups, in games, and simulations, and when talking about concrete resources or questioning about relationships. Language is also very important with regard to internalization. The English language as the official medium of communication in Uganda is a power tool used by the elite to silence the poorer masses who have not mastered the language enough to enable them to pass examinations or understand political and legal systems written in an alien language. As mentioned above, only those children belonging to certain classes learn it effectively enough to carry out a dialogue or to understand in class, consequently helping them pass the examinations. The fact that they do not have textbooks makes it difficult for such rural students to grasp this alien language.

Learner-centered Pedagogy and Democracy

A transformative paradigm to education, including global education , advocates for freedom of students and teachers in a learning/teaching situation so that there is meaningful dialogue between them. This is not only in the classroom situation but also between the administrators and the teachers. (Apple and Beane, 1993; Giroux and MacLaren, 1986) The banking type of teaching and learning is not only inefficient but also frustrating to most learners, and thus not suitable to current changes in education. Democratic colleges produce teachers who also practice it in the schools in which they end up teaching. I asked the lecturers and directors whether they feel that colleges and the education system as a whole are democratic. I wanted to know whether the teachers, lecturers and students are free to express themselves in classrooms and even contribute to the running of schools and colleges. The majority of participants held views expressed in the following quotations:

> *We are instructed not to disturb anything in the schools where we go to do school practice in the following manner 'do not disturb', 'do not question anything', 'receive what you are given passively'* (ST (3), 29-6-1995).

> *We are trained to be passive, not to be vocal, and to do what we are supposed to do. We have to be punctual in classes, and we are instructed to fit into the system. A good teacher is one who will never be challenged, and one who is more knowledgeable than his/her pupils* (ST (4), 6-7-1995).

The students are hence trained not to question authority and receive instructions passively as indicated above. As deliverers of knowledge, the student teachers are instructed to be the authority in their classrooms without being challenged. This was confirmed by one director (D (1)) later, and he said that NTCs do not train "hooligans" to cause "chaos" where they go and complete school practice. He added that, "our students are obedient," and the head teachers of various secondary schools have not complained. One participant is of the view that the system silences the teachers and students in schools and colleges:

> *There is no democracy and there is a violation of human rights in the education system. Many headmasters are dictators because they want to swindle government money. Teachers cannot question them since they fear being thrown out of schools. They also fear the head teachers will write bad recommendations for them to the Ministry Of Education and Sports. The head teachers exploits teachers, students and parents. They cannot release vehicles for fieldwork trips and yet when it comes to account for the money, they include such journeys* (L(4), 9-8-1995).

The above participant could not substantiate the allegations, yet insisted it was the truth.

In Western Uganda, where NTC Kakoba is located, there are National Parks, a salt project and a cement factory, which tend to attract teachers who deal with development topics in their teaching. As indicated above, the purpose of the fieldwork trip is defeated when the lecturer and students do not discuss its purpose, procedure or expected input of learners beforehand. If the lecturer decides to take students on a learning trip, an effort should at least be made to discuss its purpose. Another lecturer believes inadequate supply of resources, large classes, poor buildings and lack of motivation in students is an additional cause of not using learner-centered pedagogies:

The lecturer called it the exploitation of teachers, students and parents. The schools and colleges, according to this description, are becoming the personal properties of Head Teachers who exercise absolute authority.

The lecturer below describes a situation in his classroom, as well as relationships between students and administration in the college:

> *Me, I accept some questions from students. Students are not allowed to question the administration about anything in the college for matters of control; otherwise they would have many things to complain about* (L (2), 22-8-1995).

What about yourself as a lecturer?

> *Democratization has been very slow; for example, as I told you we passively accept instructions from ITEK* (L (2), 22-8-1995).

Although some students are allowed to ask questions in the class, it does not mean that there is dialogue and democracy in the classroom. Both students and lecturers are subdued and suppressed by the system in NTCs, as well as from ITEK. The participant below has contradicting views on the situation of democracy in schools and colleges:

> *There is democracy in schools. We have a student government in the college and they are free to talk. The lecture rooms are authoritarian on average. The teacher stands and addresses a rally and there is a question once in a while, but if a class size is 100, there is no chance of dialogue. For the lecturers, we have regular meetings where they express themselves* (D(1), 18-10-1995).

The Director believes that having a student government which is democratically elected is enough. Student governments in secondary schools and tertiary institutions are imposed from above as government regulation. In Uganda, this is in the form of student school councils in secondary schools, and in tertiary institutions they are called students' guild governments. The elected officials in turn become the mouthpiece of the authoritarian administration in schools and colleges. Some students later told me that during the campaigns the candidates promised big changes but, once elected, they became agents of administration instead of defending their peers who elected them. Secondly, if it is an election where the losers are left out and ignored, then this is not democracy. Regular meetings with lecturers were also mentioned as democratic, yet it might actually be meetings for receiving instructions passively.

Democracy can be defined as a form of political governance involving the consent of the governed and equality of opportunity. However, in order for democracy to be effective in colleges, it has to fulfill the following conditions, according to Apple and Beane (1995):

> Open flow of ideas, regardless of their popularity that enables people to be as fully informed as possible; Faith in the individual and collective capacity of people to create possibilities for resolving problems; The use of critical reflection and analysis to evaluate ideas, problems and policies; concern for the welfare of others and the common good; Concern for the dignity and rights of individuals and minorities (p.7).

Democratic colleges will, therefore, be marked by a widespread participation of students, teachers, parents and other members of school communities in issues of governance and policy making. Committees, councils and other decision-making groups should include everybody affected by the system. In classrooms, students and teachers should engage in collaborative planning, reaching decisions that respond to the concerns, inspirations and interests of both. Decisions in colleges belong to the wider community of staff, parents and students, and they have the right to ask that a decision be reconsidered, defended and explained. In these open and accessible ways, staff and students learn about the complexities of democracy.

From the views of many respondents and my own observations, NTCs should become more democratic, enabling both students and lecturers to participate fully in the running of the colleges. It is sad to hear stories from lecturers saying that they passively receive a curriculum and teach it. They decide neither what questions are to be set in the examinations nor the marking schemes. These are views and feelings which should be aired to the administrators so that they can discuss the status of the college. The teaching practice supervision is another area in which lecturers grumble in private for fear of repercussions from the administration. Authoritarian rule imposed on lecturers makes them practice the same thing on their students in classrooms. Having a student government is not enough; as educators advocating a transformative paradigm argue, democracy must be experienced in the classrooms as well so that students' voices can define themselves as active creators of their world. A society is democratic in so far as the citizenry can play a meaningful role in governing societal affairs. However, elite groups have commonly regarded democracy as a threat to be overcome, not a prospect to be encouraged. (Chomsky, 1991), a situation found in both north and South contexts. There should be dialogue in NTCs so that all people who are part of the system participate in decision- making affecting the system. In this regard, some data also suggest that the problem of democracy lies also in the area of macro-policy making in curriculum development. One administrator felt that Government did not have "clear and proper" guidelines until The Kajubi Report was issued (I G 12-8-1995). Professor Kajubi chaired the Education Commission which was set up by the Government to inquire into the situation of education in Uganda after many years of deterioration due to civil disturbances. The purpose of this Commission was to help develop proper educational policies based on the Commission's findings and recommendations. In addition, the Commissioner of Education and Sports stated that

> *Content must be guided by policy, but the policy has not been reviewed for a long time so the content has not been revised. UNEB influences what is taught ,but at present, there is no clear policy directing them. The National Curriculum Development Center is being facilitated to review all syllabuses so that all of them are clearly focused. If the panels are also revived it will be able to meet educational objectives. Even those writing books will be clearly guided. At present all panels are dead and U.N.E.B. is in the process of developing specialists* (CES 6-10-1995).

These administrators' comments however can be queried for their unwillingness to look into the issue of democracy in curriculum policy development. Earlier on I mentioned some curriculum documents on population and environment which were recently produced for the O-level and NTC syllabuses. All members of the panel are supposed to participate in the making of such a curriculum as stated by the commissioner. However, some members of the Geography panel I interviewed denied knowledge of the revised syllabus, and the impression I got was that only a few members were given the chance to contribute to its making. From a transformative paradigm, the teachers in the classrooms, or lecturers in lecture rooms, should be mentioned as important in influencing the curriculum, instead of just members of the Education Commission and policy makers. Sometimes policy makers are too far removed from the schools, especially if they stopped teaching twenty years ago and do not know the needs of the poor and individual schools.

Geography and the Community

Teachers as professionals serve both their national and local communities. Teachers can be politically active members of the community and also serve it by representing the values and social culture of a "non-local world". Through the colonial legacy, secondary school teachers in South contexts have usually been trained to go out and prepare students to join university or higher institutions of learning. This is the system that was introduced in Uganda by the British. It was hence, pertinent and interesting to find out from the college lecturers and directors their views on geography education and the community. Some participants said:

> *We have been interacting with the community in terms of dancing, in bars, religious places, and markets but not in terms of education or other issues* (L (4), 9-8-1995).
>
> *First years visit the village once* (L (3), 9-8-1995)
>
> *NTCs provide market, we are their tenants in housing. We go out and drink with them. They come and work in the college as porters, clerks, cooks and then go home. We are actually training teachers for a job, little do they see themselves making an impact on the community. There is no time for community work. Maybe if the number of tutors increase, such activities might be carried out* (D (1), 18-10-1995).

These respondents hence interact with the community outside the college in social gatherings but not in terms of sharing knowledge. The lecturers do not see the community as an area where they can learn from except as a place for social functions.

Other lecturers however were even more isolated from about the community:

> *We do not interact with the community at all. Even students are not interested if it means visiting the village outside the fence. They become more enthusiastic if it means going to an urban area* (L(1), 22-8-1995).
>
> *There is no interaction with the community because the syllabus does not provide for it. We could go and learn about erosion, farming, etc. I would be happier if the NTC geography syllabus could be redesigned to allow more interaction with the communities where the colleges/schools are situated* (L (4), 9-8-1995).

The lecturers believe students have no interest in the local community and prefer doing their study in urban areas. This may be explained by the fact that their classroom work is not related to their communities even if fieldwork activities link the classrooms to sectors in the wider society. For example,

> *The geography tutors here take our students to a coffee factory, a saw mill, or cotton ginnery. I have not seen them using the community in that manner* (D (1), 18-10-1995).

The saw mills, coffee factories and cotton ginnery are the most 'progressive' economic activities in the area where NTC Kaliro is located; the common people and workers who supply coffee, cotton and timber in these extractive factories are not contacted. One participant is of the view that there is not much to learn from the community:

> *Oh yes, we mix when we teach agriculture and visit successful farmers and any development projects in the village, but these are very far from the college. Otherwise, interaction with the community will take some time. Even in the RC system, Kakoba is its own cell and outsiders do not mix with college residents* (D (2), 25-10-1995).

When I asked " what about the unsuccessful farmers who are the majority, and who live outside your fence - do you think of visiting them?", the response was:

> *What will the students learn from such people?* (D (2), 25-10-1995).

These responses are consistent with my earlier analysis regarding research projects carried out by student teachers. The students are socialized to look at society from the top where authority lies, and their research projects are also a top-down type of research. The above director, when asked "what is the role of a teacher in a community?", replied:

> *to enlighten the people, lead and explain things like government policies, etc. to the people* (D (2), 25-10-1995).

Clearly, there is an implied notion of enlightenment as coming from educated experts or elites , bringing knowledge and solutions to the ordinary peoples. When I asked how he/she may be preparing students for that role, the response was that

> *Well, something went wrong with the teaching profession and we are not doing it* (D (2), 25-10-1995).

The participant later in the discussion implied that he believes that teachers can lead the community by teaching local people informally, but this is not being done in communities today. He attributes this lack of involvement in community work to the shortage of funds, time and lack of enough lecturers. If the Ministry of Education is unable to fund some of these activities, colleges should take the initiative to fundraise money to raise the consciousness of their lecturers and students. The colleges could put community work on their agenda and ensure that funds are available for affordable activities like a one day seminar. Community involvement is important because the lives of staff, students and parents extend beyond the college, and the broader community in turn directly affects the students.

I regard teachers of all calibers as intellectuals who have a duty to perform in society. They can provide leadership; for example, they can be appropriately useful in explaining the government policies and documents written in a technical and foreign language such as the NRM manifestoes (like the ten point program), the RC system and how it works, and the several agricultural and medical pamphlets which people find difficult to follow. They can be leaders of social movements for transformation like environmental activists, non-formal and informal educationists, etc. Teachers can play a critical role in informing parents about the needs and values of the goals of education and the curriculum. Teachers can identify the needs of a community which can be incorporated in the curriculum, and can conduct community awareness sessions in which various orientations to schooling are discussed. The community may not be aware of why changes in the curriculum are necessary and needed, nor of the changes made in other countries. Lastly, teachers can do action-research in the community so that changes in education are based on sound and valid research. In Uganda, this kind of transformative process may not be possible since teachers' roles are defined in practice as those pertaining to classroom work only. Teachers under currently poor conditions of services are not committed to such activities on a voluntary basis, since they have to look for supplementary income. Thirdly, colleges and school syllabuses do not have a community agenda in their topics to be covered. Fourthly, the curriculum is highly centralized and constructed from above by the various subject panels in The National Curriculum Development Centre who may not be oriented to a critical paradigm which recognizes an ecological approach to education.

Another point is that there are very few agricultural, veterinary or medical officers in villages whereas there are more teachers accessible to the people. One can argue that these are too many roles for teachers, but to me such information and education is more relevant than teaching about combine harvesters. Teachers and students would incorporate this as part of the curriculum; they could help by posing and defining problems as well as solving them together with the village people. For example, student teachers and lecturers can analyze the applicability of geography knowledge in Syllabus 273 to the communities in Uganda; for example, knowledge of plantation agriculture to the peasant farmers. The student teachers, upon graduation, would do the same thing in the areas where they end up teaching.

In Uganda, students are prepared to go to University and get a white collar job, therefore, initial teacher training has not focused on community-based programs. Teachers are trained to deliver book material to students who would later join the university. In this modernization paradigm, the community is ignored because it is poor and has nothing to offer to the educated elites. That is why one of the directors said that students have nothing to learn from poor communities but only from successful farmers. The colleges should be reminded and made conscious, in case they do not know, of the roles a teacher holds in the community. NTCs would be doing more research in the community, using it to teach and develop their own theories and concepts which are more appropriate, rather than using modified western methods (Alatas, 1993). This is also emphasized by the President of Uganda, Museveni (1993) when he said:

> Ideas must spring from your social reality. You must analyze your own society and extrapolate relevant theories on which you can base your judgment and actions (p.114).

His ideas have not been put in practice because little research has been going on for the last twenty years in Uganda. Secondly, the few researchers in the country are inclined towards a modernization paradigm which tends to look at local communities through a western eye which ignores local knowledge. Altbach (1975) argues that most South countries lack indigenous authors to write on subjects of national concern in languages which most literate citizens understand. Through global education, students would become aware of the relevance of community education and develop an interest in it.

Geography Clubs in Learner-centered Pedagogies

One of the methods that could be used to make geography programs in NTCs more effective in teacher training is through formation of Geography clubs. National Teachers Colleges are expected to have geography clubs, as well as teach their students how to open and run a geography club in secondary schools where they end up teaching. However, the majority of students offered the following opinions:

> *Geography clubs are not there in NTCs and secondary schools. We are given notes in detail at NTCs theoretically, like drawing a plan for three months. It is not cheap to start a geography club, it requires a lot of funds and involves many people in the school including teachers of other subjects such as agriculture. How to get that money is difficult. Being our teachers, lecturers are supposed to give us guidelines. Practical work can be done but this is limited by the security of equipment since classrooms cannot be locked* (ST (2), 27-6-1995).

> *It is explained theoretically and we study it to pass examinations. As geography teachers it is high time we put theory in practice* (ST (4), 5-7-1995).

There are no geography clubs in NTCs from which student teachers can learn and later use such knowledge to start clubs in secondary schools. The students are given theoretical guidelines only and not practical experience. Other participants imply that there is a lack of commitment by lecturers and students to actively run geography clubs:

> *It is there but is not active. We are trotting here and there looking for money so we cannot sacrifice our time for such. The issue is funding. We give them theory and expect them to put it in practice. Terms are short, there is no capitation, and everything is erratic because the government fails to finance them* (L (2), 22-8-1995).

> *We can do it but there is a lack of resources. It also depends on one's creativity and interest. But as I look at it, it is very difficult* (ST (1), 22-6-1995).

> *We have one which works closely with the wildlife club. Students are not taught to form one in practice since we assume they are mature enough to know what to do. We give them little of what they are supposed to know because of time and finances* (L (3), 9-8-1995).

Although these college students receive instructions in class as to how to start a club, it is difficult for them to put it in practice. The undemocratic nature of the administration in NTCs scares off some students by making them believe that it is difficult to break through the bureaucracy:

> *Let us not imitate our educators; instead jump up and start working. What is hindering us is bureaucracy in the NTC administration which is difficult to convince. But in schools it is possible* (ST (4), 6-7-1995).

If there was dialogue between students, lecturers and Directors, it would be easier to discuss the possibilities of starting geography clubs in the colleges or schools without incurring high expenses. One participant blames students and the other lecturers/teachers for the failure of geography clubs:

> *Students can encourage tutors to set up a geography club. Students need to take the initiative and fill in the gaps of knowledge and NTCs administration should see the need to support the clubs* (GP (5), 16-8-1995).

> *Geography clubs promote geography knowledge. There is a general weakness in that the teachers are not active in some of these things. The trouble is that there is no geography inspector of schools* (GP (1), 25-7-1995).

The participants feel that if there was an inspector of geography who would ensure that clubs are started in schools and colleges, NTCs would also support their students. However, from a transformative paradigm, this resort to inspectors serving as regulators of Geography clubs need to be queried. If there is sufficient commitment and support within the curriculum and program, inspectors would not be necessary to ensure that Geography clubs are started in schools/colleges.

The lack of funds to start or revitalize geography clubs is an issue which is also raised by students. The poor economic conditions of teachers makes them believe that taking time to guide students in geography clubs is a real sacrifice of their precious time that could be used to look for food. While some teachers think the academic terms are too short for the establishment of clubs, other lecturers blame the students who do not take the initiative to start them. The students are brought up in such a way that they always receive instructions and information from a teacher who is regarded as the expert. Although these college students receive instructions in class as to how to start a club, it is difficult for them to put it into practice.

Geography clubs are useful in filling in what cannot be covered in classrooms, for example, in NTCs practicing fieldwork as a method of teaching, micro-teaching, and geography seminars. Geography teachers in colleges should receive such practical knowledge so that it is easier to implement clubs in the future. It is also one method that could be used by NTCs to get involved in community work. Colleges could also investigate the means of getting UNESCO. to fund projects or clubs that would involve students in communities.

Lecturers in Learner-centered Pedagogies

The integration of global education and a transformative geography paradigm can help to eliminate some of the shortcomings currently found in NTC teacher education programs. This requires people to first indigenize knowledge, a process by which a country develops its own human resources. This can be done through the expansion of the country's community of scholars, educational and research institutions, and locally produced education and development literature. This means training lecturers in the theory and practice of global education. The section below presents views of participants of the geography lecturers in NTCs. For the students, what matters is that they pass their examinations and get a teaching certificate, therefore, the majority said:

> *They are good, they give us what appears in the examinations, but one was harsh. They made me learn things which I missed in my O-level education* (ST (1), 24-6-1995).
>
> *They are well equipped but, because of the strike, they didn't do much. Secondly, they reside far off. In fact I pity them; they are not different from us. They come to college sweating after teaching from many other schools, and they dress like us because of economic conditions* (ST (5), 6-7-1995).

According to the above response, the students expect ready-made knowledge from their lecturers, but this should be discouraged so that they become responsible for their own learning. It also reveals that lecturers are frustrated by the fact that they have to rush through a syllabus in order to make the students pass; the students show concern for the poor economic conditions of lecturers and the distances they have to walk. A few participants however believe that some lecturers are incompetent in the theory and practice of teacher education:

> *Lecturers are not teacher trainers. They are part-timers in secondary schools so there is no time for their student teachers. We have a situation of untrained lecturers training teachers with no facilities. They have no knowledge of current issues in training teachers. Lecturers just pump facts but do not know how to train teachers* (AC (1), 2-10-1995).
>
> *There is no training institution for NTC.lecturers, they learn on the job. There is a difference between teaching in a secondary school and NTCs. The experience of lecturers also matters. Lecturers are the most poorly paid, so morale is very low and they do not read books* (GP (5), 16-8-1995).

Lecturer incompetence is attributed to poor training, poor salaries and the lack of teaching materials by other participants as well. The lack of resource materials, however, may tempt the government to pump in more capital with the belief that it would improve the system. What is equally important is finding out the kind of curriculum used in the training of teachers. Another participant argued that

> *There is inadequate preparation of lecturers as teacher trainers and their salaries are low. There is no formal machinery to see how much has been covered, and, since students have not complained, we assume everything is alright. Secondly, there is little time to cover syllabuses by the few members of staff. Thirdly, there is no cooperation amongst staff from the other NTCs in terms of improvement in the training of teachers. Their cooperation does not go beyond the trade union spirit just before school practice. There are no refresher courses so they look at everything in the traditional way; they need new ideas and attitudes* (D(1), 18-10-1995).

The Director believes in policing the lecturers in order to ensure that syllabuses are covered. This kind of practice is too oppressive for lecturers and is not consistent with global education principles. He raises an important issue of no cooperation between lecturers from different colleges, so there is no sharing of ideas. This collaboration could also extend to schools and the community where they do practice teaching, the local institutions of power and culture and many other people affecting the system in NTCs. The criteria used to appoint NTC lecturers was explained as:

> *A requirement for teaching in NTCs is that the teacher must have taught in a secondary school for at least three years. I noticed these are not teacher trainers so I organized a course for training teachers in Kakoba NTC. They do not treat us as lecturers of NTCs. A lecturer with two degrees getting 112,000/= per month, no PTA funds and other benefits is a bit unfair. However after the strike the salaries were raised a bit and a housing allowance was instituted* (D (2), 25-10-1995).

A seminar/workshop of this kind is not adequate to train teacher trainers since the few I interviewed did not seem to know well enough the current methods of teaching geography. The officials in the Ministry of Education And Sports elaborated more on the appointment of lecturers in NTCs as follows:

> *Lecturers in NTCs are appointed by the Teaching Service Commission. The Ministry of Education and Sports gives them guidelines as to what kind of caliber is needed in each subject area. The problem is that the colleges were created abruptly and directors just grabbed teachers from secondary schools. Some are not yet appointed by the Teaching Service Commission. We are planning to advertise so that all are interviewed* (AC (2), 11-10-1995).

Another Ministry official gave me more information:

> *We do not have institutions producing lecturers for NTCs in Uganda. These colleges were created in the 1980s because every region wanted an NTC. There were no lecturers to fill teaching positions so the directors employed whoever came along. Consequently, you may find an English teacher handling psychology. Secondly, NTCs have not been popular since there were no PTA funds to supplement lecturers' salaries. They acquired lecturers from Grade 111 colleges who could handle methodology. Today when we employ a lecturer, we look at his/her teaching subject, then if he/she qualifies we take him/her. Another problem you might consider is that students who go to NTCs do not come from well-established schools like Gayaza, Namagunga, Kisubi, etc. Their background is questionable and these are the people who later upgrade with poor backgrounds and become lecturers* (AC (3), 11-10-1995).

The colleges are described as political creations, and anybody with a transcript of a teaching certificate is employed. This explains why lecturers with geography as their minor subject now head the departments in NTCs. The above response also reveals the fact that NTC expansion was never planned for, explaining the acute shortage of qualified lecturers and teaching resources. Another high ranking officer shed more light on the financing of NTCs thus:

> *..Some of these colleges were formerly primary teacher training colleges and were later upgraded to Grade V, but the government has not been able to finance them to the level of NTCs. They are supposed to be fully funded by the government, but at present, the capitation they are getting is almost nothing. The attitude of money lenders also affects facilities given by the government to colleges. The British Council financed the teaching of English and science but not arts subjects in NTCs. We already have a plan for NTCs but there is nobody to fund the program. Another problem is that the follow-up of newly qualified teachers is not possible because of funds. The Ministry has been trying to introduce cost-sharing but it has not yet been approved* (CE, 6-10-1995).

This officer raises the fact that new initiatives and reform programs require external support which is responsive to the agenda and preferences of the funding agencies. In Uganda, funding for arts subjects (which include geography) is not yet available. This explains the lack of reading materials and special rooms for geography in NTCs. Cost-sharing is not yet approved, which is not surprising, since the people who benefit from this free education in tertiary institutions are the children of those who are supposed to approve it. The lack of capital to invest in education reflects the historical underdevelopment of Africa and its dependency on the north. The above response reveals that lecturers in NTCs have limitations and are in turn constrained by limitations within the education system. The lecturers (as described above) play the role of transmitting knowledge to the students which they in turn use in examinations.

Lecturers, like students, are not empty vessels into which the current wisdom can be poured; lecturers can be active participants in a democratic culture. This would encourage them to unearth the reasons beneath their current practice and to reconsider that practice in light of changing economic and social realities. Lecturers have the right to help create their own programs for professional growth based upon their perceptions of problems and issues in their classrooms and professional lives. They have the right to have their voices heard in creating the curriculum; centralization of the curriculum de-skills lecturers in defining their work as they become implementors of other people's ideas and plans.

Lecturers in NTCs can be transformed into creators of knowledge using the global education framework which is embedded with a critical paradigm. According to the global education theory, a global teacher has the following characteristics which could be used to transform lecturers in NTC s.

A global teacher has a cross-cultural perspective and avoids exotic, romantic and stereotypical views of others and, therefore, an in-depth study of cultures is important to the development of the world view (Toh, 1993). The teacher should be concerned with the past, present and future, so it is important that he/she get the skills and capabilities to explain to students the pace of change and how to cope with the processes of social change. The teacher departs from the traditional role of being a transmitter of knowledge to that of a facilitator, allowing him/her to enjoy a genuine relationship with students, be open to them and interact with them in a humane way. The global teacher believes in human potential, knows the limits and strengths of the students, and learns to respect each one. The students are helped to develop a critical outlook being encouraged to ask questions which do not necessarily require correct answers.

For example, when teaching about tourism in Uganda, a teacher could use examples of protection of the endangered gorilla species in the mountains of southwest Uganda. In addition to protection, tourism is being developed in the area for people to observe the gorillas in their natural environment. This topic could be developed from local through to international levels. Questions such as: Who benefits from this industry? What is the role of the company given the contract to develop this area and protecting the environment? How are the local people affected? How did the local people and the gorilla co-exist for all these years without destroying each other? What do the local people gain from the development of this industry in this particular area? These and other questions can be discussed, debated and researched on by the students with their lecturers.

In urban geography, the students can discuss and debate the housing projects which were recently implemented, such as the Masese Women's' Project in Jinja and the Namuwongo Housing Project in Kampala. Both projects were slum upgrading projects where the slum dwellers were assisted by being given input on credit to build better houses. The students and lecturers can discuss whether the poor in these slums gained anything; whether the type of houses built (design) meet the needs of the owners. For example, slum dwellers brew alcohol which needs space outside the house. Such spaces may not have been provided in the new housing estates. The students and lecturers can easily do research on participation of recipients in decision-making before and during the project formation and implementation. This would be a better way of approaching it, rather than a lecturer giving notes on such topics.

The teacher in this paradigm is a community teacher because it is only the community that offers an holistic education (Hicks, 1988; Pike and Selby 1988). A global teacher also seeks to change the conditions that create social inequalities in schools. They seek to stand firm against racism, injustice, centralized power, poverty and other gross inequalities in colleges, schools and society. This paradigm is transformative in the sense that it empowers learners not only to critically understand the world's realities in a holistic framework, but also to move learners and teachers to act toward a more peaceful, just and liberating world. The teacher and the learners all have to be learners, and all have to be cognitive actors who are critical in the act of knowing.

Some participants question the intellectual competence of students who join NTCs, the majority of whom come from "third world" schools (deprived schools). There were no figures given to me to substantiate this statement. The fact that these students come from deprived schools and manage to join NTCs means that they are equally as competent as those from the privileged schools of Gayaza, Kisubi, Buddo, etc. In fact, these third world products make ideal global teachers since they live with the reality of life among the poorest of the poor. If well trained, they are more likely to go back to rural areas to develop them. Using the global education framework, students can be transformed into critical learners.

Learners in Learner-centered Pedagogies

The basic principle of global education and a transformative paradigm in Geography is that NTCs should enable students to develop values and attitudes that will empower them to critically understand societal and global issues. The students and teachers undergo a transformation that includes a context outside the classroom if the process is a liberating one. The training challenges the students to mobilize or organize themselves to obtain power. Empowerment here means acquiring self-esteem, and the confidence to reflect and act on problems facing them. They would not wait for instructions from their lecturers, and this would help NTC students who currently receive everything from above. This means using methods which will liberate the students as well as their lecturers, such as the dynamic, problem-posing lecture, together with student presentations, group work in class, individual work, writing sessions, fieldwork outside the class, etc. These reduce the time spent talking by lecturers in the transfer of knowledge (Shor and Freire, 1987). The methods used should reveal the dominant ideology which shapes education according to the interests of those in power. The student in this paradigm is a colleague of his/her lecturer and is in charge of his/her own learning. The curriculum in learner-centered pedagogies includes not only what adults think is important, but also the questions and concerns students have about themselves and their world. It recognizes that students acquire knowledge by studying external sources and engaging in complex activities that require them to construct their own knowledge.

In the Philippines, rural environmental activist groups were formed by youths to campaign for the conservation of the environment. (Gonzales, 1994) Similar groups could be formed by Ugandan youths, spearheaded by NTC students who actually live and study in rural areas. This could be done through geography clubs if they were revived in NTCs and secondary schools. In the Philippines, poverty is viewed as the main cause of problems of those in rural areas. As such, the environmental crisis is viewed by Paghida-et sa Kauswagan Development Group (P.G.D.) as mainly a problem of the stomach. The poverty of the people is understood to be perpetuated by the lack of access to productive resources such as land and capital, a basic infrastructure, social services and marketing facilities. There is another problem with the rapid degradation of the province's natural resources which has decreased productivity and destroyed these resources' sustained existence. The Philippines also has a population problem due to natural births and in-migration. There is no peace and order, resulting in massive human rights abuses and dislocations. Exploitation of the rural economy, debt burden, energy crisis and structural defects are all variables in the economy of the Philippines. The main aim of the project is to empower rural, poorer communities so they can meet their basic needs and aspirations. PDG tries to encourage and support local initiatives toward the establishment of local resource institutions from organizations which will serve as catalysts of sustainable development. This kind of program can be started in rural areas of Uganda experiencing extreme degradation of the environment. NTCs which are located in Uganda's rural areas can help to empower their students to form environmental activist groups, with objectives similar to the Philippine project, since their problems are similar. This kind of learning is more relevant than the current high technology and modernization syllabus.

The Value of Global Education?

The students appear to have positively considered issues and strategies of global education especially after the seminars I facilitated towards the end of the field study. Narratives of students below were made during the focus group discussions and seminars. The lecturers and some directors also made comments during the seminar, and the rest of the narratives were made during interviews. The majority of participants responded:

> *Global education makes you aware of what is going on in reality since it is not theoretical in practice but real in experience* (NTC Kaliro Seminar, 21-22 Sept. 1995).

The issues covered in the discussions during the focus groups and seminars are related to their actual experiences and are easily comprehended. Topics covered in the seminar were politics, culture, women, wars, conflict resolution, environment, human rights and street children. Another group appreciated the methods:

> *These methods are nice, but the number of pupils is too large. We have to teach according to the syllabus, since any additional material will be questioned and considered irrelevant. It makes somebody understand his immediate surroundings, to which he can adapt, since it covers everything one needs to know* (Kakoba, 7-8 Sept. 1995).

Global education has a holistic approach to issues and this is appreciated by the participants. Methods used in the seminars were few and are also appreciated, but their applicability is questioned because of the big classes in schools. The main methods I used were: role plays, music, panel discussions, group work, brainstorming, and passages. (Appendix 3). The large number of students in a class need not be a serious concern since they can be creative in small group work. Other participants appreciate the way issues are connected globally:

> *It should be encouraged because most of the problems are worldwide; for example, issues of street children. Now we know the street children issue is related to geography and now we know they are there because of structural violence* (NTC Kakoba, 21-22 Sept. 1995).
>
> *A very good idea to integrate it in geography. It will help solve some problems, for example, by evaluating the causes of famine globally we will get to know common perspectives in each region. But on the other hand it is not easy because the teaching is determined by the curriculum and, due to a lack of facilities, it will be difficult to implement it. It will call for refresher courses* (NTC Kakoba Seminar, 7-8 Sept. 1995).

Through the reflection on literature provided in the seminar, the participants were able to see how such issues as women, street children, human rights, environment, famine and hunger are related and connected globally. Obstacles to implementation are identified such as funding. Other participants add:

> *It creates more room for critical thinking by making one think harder about how one thing came into existence. It will help to connect issues and even look beyond Uganda* (NTC Kaliro Seminar, 21-22 Sept. 1995).

The participants were enabled to analyze issues and look beyond symptoms to root causes. They examine issues in terms of social good using the full range of social, ecological, economic, spiritual and ethical values. Others are of the view that global education would make geography more relevant:

> *Issues of global education are alright and will make geography education relevant to the needs of the children. However the work of UNEB is to set examinations based on a curriculum developed by NCDC* (UO (1), 29-8-1995).

> *If we bring in more issues, it means an expansion of the syllabus. Secondly, teachers teach what is prescribed in a syllabus and not beyond that. Some teachers are unaware of what is happening globally. However our syllabus is a skeleton so when we add the flesh of global education, it will be good* (L (4), 7-8 Sept. 1995).

The participants above value the ability of global education to relate the Geography content to the needs of the students. However, for this ability to be fulfilled, the Ministry of Education will need to provide reading materials to teachers and students so that they receive a wide as well as critical knowledge base of what is going on in the world. In this regard, the experience in neighbouring Kenya provides a useful role-model. In a recent study, Osler (1993,1994) examined the Pied Crow project funded by the CARE NGO and official development agencies of Canada and Britain. The project prepared curriculum support materials focusing on environmental, social, gender and human rights issues to encourage primary school children to participate actively in development in their own communities. As Osler noted, despite the constraints posed by Government guidelines about politically controversial issues, the Pied Crow materials have helped to promote education for development and democracy in Kenya.

Finally, the issue of language was raised by other participants:

> *It is a better subject than others we are learning like Latin, Luganda etc. With global education you can go back to the village and develop it. It caters for both teachers and students, and helps children develop into good citizens* (ST (1), 23-6-1995).

Languages are optional subjects offered in secondary schools and some tertiary institutions. Although it is good that indigenous languages are taught to students instead of foreign languages only, these participants resent it because they feel dominated (especially if their own particular language is not recognized in that manner). In order to understand the world outside the college, local languages must be learned by both students and lecturers. Instruction in two languages promotes a better multicultural understanding. Emphasis on local languages enhances students' self-esteem because students soon learn that no matter what social class they come from, they bring something of value to the classroom - their language. Global education is valued for its applicability to society and the dialogue encouraged between the teacher and the student. Global education also develops students into global citizens, a particular citizenship, a person of concern, involvement and action; each becomes a new person dedicated to social justice, recognizing the interdependence of humanity and life.

Possible Global Issues In Geography

Following on from the global education workshops, I asked participants for their ideas on what issues need to be included in the Geography programs in NTCs. A few are of the view that:

> *Human rights, culture and the world economic system are o.k.* (NTC Kaliro Seminar, 21-22 Sept. 1995).
>
> *Environment and population, as well as gender, have been included in the proposed syllabus for the O-level. Religion and culture are o.k. Man-made disasters, wars, problems of refugees, floods, social development are o.k. and appropriate* (GP (5), 16-8-1995).

. Another participant approves of global education but has concerns over the preparedness of teachers:

> *Global education issues are alright but teachers will need to be guided through courses and manuals. We should introduce approaches and methods of teaching and learning situations* (AC (1), 2-10-1995).

Countries such as Canada, which implement global education, use their own teachers to write teaching manuals for each subject. This is done with the help of seminars and workshops held every year facilitated by national and international global scholars. Methods of teaching and evaluation are demonstrated in such workshops. This is something which Ugandan educators from schools, colleges and universities could do in order to develop teaching materials related to the Ugandan context.

Another participant observed that some global issues are already present in the current syllabus:

> *We have been touching on those issues; it is not something new. Human rights, culture, politics are o.k. and relevant but the syllabus will need adjustment here and there. Women will need to be studied in population studies, pollution in agriculture and industrialization. Man-to-man interactions is history and culture. They normally say our culture is a response to our environment, so both would be studied together. We need to teach more courses so that all issues of global education are covered, that is, geography as a double main. We need more resources and advanced research. The methods need more time when teaching and training teachers. We are given only two hours of methods. If we are given more contact hours, more methods will be introduced to the teachers* (L(2), NTC Kaliro Seminar, 21-22 Sept. 1995).

The above participant appreciates the need to give geography more time on the timetable so that all issues and methods of global education are included. Areas where each issue could be integrated are suggested (such as research), thereby widening the content. Another participant has this view:

> *I have no objection to introducing gender issues so that students know gender roles. Environmental awareness and education should be part of the curriculum at all levels of education. Human rights may not be geographical and, therefore, not the right discipline to emphasize it. It could be taught as a geographical distribution of human rights abuses. Laws and policies governing the land, population and urbanization belong to lawyers; we are not concerned with this in geography. We need to know urban laws when teaching urban geography; in fact an aspect of it indirectly is o.k. and good. Conflict resolution should be done by religious leaders. Refugees can be taught in terms of areas affected by refugee problems; for example when teaching about Africa, students could look at trouble spots in Africa, which include Rwanda, Uganda, Sudan, etc. Music and handicrafts should be included. The syllabus would require redesigning so that the issues raised could be incorporated. The teachers would need refresher courses, but the government does not have sufficient manpower and resources to implement these activities at a national level* (GP (3), 7-8-1995).

This participant supports the idea of including some topics of global issues and problems, although he is still in the modernization paradigm on some issues of development. For example, recognizing gender roles which are socially created would perpetuate the domination of women in society by men. The lack of resources and manpower is foreseen as a constraint by this participant. In global education, conflict resolution is not an issue for religious leaders only, but for everybody in the community. Three other participants support global education because they have experienced it and valued it:

> *I support global education very much since I went through a similar kind of education in the University of Dar-es-Salaam. We did an interdisciplinary course which widened our thinking* (D, NTC Kaliro Seminar, 21-22 Sept. 1995).

> *What you have been explaining to us is social studies and we have been doing it, though not in detail. However, it is a good idea and I support it.* (NTC Kaliro Seminar, 21-22 Sept. 1995).

These participants need to distinguish between social studies and global education, and that global issues can be integrated across the curriculum. A third participant had a similar experience in his education:

> *I did an interdisciplinary course at Makerere University and did courses in both the science and arts faculties. I taught history and mathematics in the end. Global education will be good to be integrated across the curriculum.* (CE, 6-10-1995).

The fact that most of the participants (including the directors and high ranking officials in the Ministry of Education and Sports) support it makes it easier for a further conscientization to help them understand more about global education. Some participants, however, are totally against it:

> *There is no direct link between geography and human rights; that should be in politics. Politics - leave it to people interested in it. However there are some areas in geography where it is handled, though trivially. Socio-economic dynamics determine the political trends in a country, as well as government policies. Geography content, however, doesn't go into those details. People in slums go there voluntarily and so can voluntarily return to the villages. Women's issues are trivial. How do you teach these issues that are controversial, as they are difficult to integrate in geography. Secondly, we do not get involved in curriculum making* (UO (2), 23-10-1995).

Another considers at global issues too sociological:

> *You tend to push geography into sociology. I teach my geography as a scientist; I do not like welfare geography. I wouldn't teach religion as a theme in geography. Global education will be difficult to implement; books are not available, teachers are not willing to do research, it is difficult to examine such a syllabus* (GP (2), 3-8-1995).

However, if we have to understand and consequently change our way of life to save the planet, sociology must surely be an integral part of geography education. Geography is also concerned with religion because it has a relationship with the world; it influences the way in which the environment is used and shaped, and in turn shapes it.

The first participant is not aware that political education through geography encourages students to realize that people are creators of values and social processes whereby they find expression. Values are reflected in different political ideologies, parties and programs. A relevant geography education would allow students to evaluate competing conceptions of such values as social justice and environmental well-being. It would encourage a critical approach to the existing political system and acknowledge the role of power and conflict preventing or enabling social change.

Resistance to Peaceful and Transformative Pedagogies

As earlier put, educators advocating a transformative paradigm have maintained the necessity of peaceful pedagogies to accompany appropriate content and knowledge, as reflected in themes such as holism, dialogue, conscientization and empowerment (Freire, 1976; Shor & Friere, 1989; Toh, 1988; Reardon, 1995). However, responses by dominant paradigms of theory and practice can often raise barriers and resistances to such themes, resistances which need to be considered when trying to implement a transfromative paradigm in Geography.

The possibility of hearing a wide range of views and voices is often seen as a threat to the dominant culture, especially since some of these voices offer interpretations of issues and events quite different from those traditionally taught in schools. Encouraging students to critically analyze issues and events raises the possibility that they might call dominant interpretations and teachings into question. Since global education challenges the authority of teachers, implementation of such a curriculum might encounter some difficulties. An example of this would be those teachers who consider themselves experts, finding it intimidating to regard students as colleagues and to carry out a dialogue with them. Dialogue is feared because it is creative, unpredictable, and invented in-progress, making some teachers worry that they will make mistakes in class and lose control or respect. Teachers may also fear that they will become targets of conservative attacks, and that Head Teachers, colleagues and students may reject this liberating pedagogy. With poor pay, teachers are not committed to the teaching profession, and yet global education requires committed teachers.

Redesigning the curriculum so as to integrate global education may also meet resistance from the public and the Ministry of Education and Sports, especially from the officers concerned. Organizing the curriculum around major social problems and issues comes into conflict with the sterilized version of knowledge and skill that is part of the separate subject, discipline-centered, high culture approach to the curriculum. (Apple and Beane, 1995). The possibility that students might contribute their own questions and concerns to the curriculum raises the threat of touching on issues that reveal the ethical and political contradictions that permeate society. There are people who believe young people should not take on social issues because they are not ready to understand the complexities involved or because they might become depressed. This, however, ignores the fact that the young are real people living out real lives in society. (Apple and Beane, 1995). The ideas and efforts of global educators are likely to be resisted by both those who benefit from the inequities of schools and those who are more interested in efficiency and hierarchical power than in the difficult work of transforming schools from the bottom up.

In Uganda, the few officers I interviewed supported global education, although a lot of conscientization is needed to make them aware of the range of issues involved. The Commissioner of Education said in his interview that the subject panels in the National Curriculum Development Center were almost "dead" and needed revitalizing. He also stressed using the new educational policies to guide the content of the curriculum. The educational policies under the NRM government are favourable because they show concern for the common people, but need revising since some are still in a modernization paradigm. This is actually a ripe time for incorporating global education as new syllabuses are made by the new subject panels. Workshops and seminars, resource materials and facilitators would be required to carry out this conscientization. The government, which is the main financier of education, has to be conscientized too.

Other institutions of higher learning (such as the universities) have to agree to influence the designing of courses which are to be integrated with global education. UNEB and NCDC, which influence the curriculum in NTCs and schools, need to be more conscientized so that they can make appropriate decisions regarding syllabuses and their evaluation. While as data in this study have shown can be a limiting factor, the implementation of global education in Uganda can still progress provided there is a n adequate pool of advocates among educators and policy makers. . Last not least, aid donors can be encouraged to sponsor projects which are more responsive to the needs of the masses. Those responsible for the selection of universities abroad for higher learning have to be selective and prioritize those with a global education component.

Teaching Aids And Textbooks

All participants say lack of textbooks, teaching aids and time makes it difficult for them to use the inquiry-discovery methods of teaching. For example, some of them responded:

> *Teachers lack good teaching methods. There are no maps, atlases, globes or other teaching materials. There are no geography rooms in schools. Teachers do not make lesson plans, marking schemes, and few give assignments and homework. Classes are big with 60-80 students and more. The teachers are also not committed to their work* (IG,12-8-1995).

Despite the above realities narrated by this high ranking officer, the Ministry of Education and Sports has done almost nothing to correct the situation. The officers in charge of inspecting schools admitted that there are no funds to visit or organize in-service courses, no textbooks, globe or papers. The number of students in each class is very large making it difficult for some methods to be used.

> *For assignments, the library in NTC was not effective since it lacked textbooks* (ST (3), 29-6-1995).

The students find it difficult to do assignments requiring wide reading because of a lack of textbooks. In NTCs it is clearly written that lecturers should give student teachers notes which they will later use in their own classes once they go out to teach. Lecturers and teachers in Uganda lack teaching materials including the basic textbooks, and this makes them use lecture methods in order to cover the wide syllabus. The majority of lecturers have actually experienced similar methods as their student teachers. For example, one said he was given methods of teaching at the University in theory without any demonstration. So he uses the best method in the present circumstances, which is the lecture.

> *I experienced fieldwork, lecture and the use of textbooks. I use question and answer, and discovery methods. Visual aids are expensive to buy* (L(4), 9-8-1995).

CHAPTER SEVEN

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents conclusions and recommendations drawn from the findings through the voices of the participants, class observations, and analysis of documents made available to me. Most educational research in curriculum has not paid much attention to paradigms of specific disciplines or their effect on the teaching and learning of the discipline. Most studies have concentrated on content, methods, and their effect on teaching and learning situations. This study looked at the paradigmatic orientations embedded in the content and pedagogy used in Geography education in National Teachers Colleges in Uganda. Drawing on initiatives worldwide in both North and South contexts, the study also explores possibilities for integrating curriculum and schooling with alternative and critical perspectives referred to as the transformative paradigm in Geography as well as global education in general. There is considerable evidence in this study that the Geography programs in NTCs generally embody assumptions, knowledge and skills of the modernization paradigm. The participants, including Assistant Commissioners and Commissioners, are very critical of the teacher education programs in Geography and feel that it should be changed, albeit most still remain within the modernization paradigm. The study has identified areas that the participants perceive as problem areas and the data could be utilized to enrich the programs towards transformative and global education perspectives. The last section of this chapter makes recommendations as to how the Geography programs in NTCs could be transformed to make them more relevant to the needs of Ugandans.

Conclusions

(a) Definition of Geography

The subject is defined in the environmental determinism paradigm by most participants. This is revealed in the voices of participants when defining the subject, where much emphasis is put on the physical environment as influencing the activities of human beings. This is also reflected in the approach used in teaching regional papers of East Africa, Africa, North America and the Rhine Lands, where physical geography is implied as determining human beings' activities. This was emphasized by most of the participants, especially the lecturers, by members of the geography panel and the UNEB, and by a few students.

Human geography is greatly influenced by the conventional dominant classical economic paradigm. In this paradigm, the earth and people are looked at as resources to be exploited for the purpose of making profit. This justifies the study of natural resources like minerals, plants, and animals which can be exploited. Locational theories are regarded as very important and are applied in the teaching/learning of geography. In this paradigm, people are viewed as objects with no feelings, and factors of production to be used in the making and accumulation of profit. The students and members of the geography panel emphasized this paradigm.

The scientific/quantitative paradigm is also reflected in one of the definitions where the students defined it as a scientific study. This is where everything (whether physical or human) is quantified to make geography fit in well with the contemporary scientific subjects. Geography is looked at as part of the empirical knowledge, since it is a science derived from the experience of man. The students are, therefore, expected to describe, explain and interpret maps, texts, and statistical data made by other people. When the subject is defined as an academic subject integrating arts and sciences, the subject is looked at as a source of good knowledge. Here people are viewed as workers in the process of development. Both the members of the UNEB and students emphasized this paradigm.

A minority of students and other participants, however, are of the view that geography is the study of human beings and the environment, including his physical, social, cultural and political environment. They tend to emphasize the well-being of human beings and the planet as a whole in their definition, thereby widening its scope and making it more critical of dominant scientific/quantitative definition.

The majority of definitions above emphasize spatial variations in natural environments. These definitions do not reveal aspects of culture, religion or other sociological aspects of people. Human experiences in politics are neglected, and human relationships and human rights as aspects of geography are left out because of the way geography is defined and interpreted. The paradigms above do not recognize values in geography, such as the value of life, the value to preserve life in terms of the resources of the earth, and the potential of people. Environmental quality is not emphasized. Problems are portrayed in a male perspective to the detriment of understanding the place of women in society as well as in social, economic and political development. The definitions above ignore important conditions of human welfare and social justice. They do not help to provide skills and values, nor knowledge needed for solutions to societal problems. The above aspects which are ignored should be included in the definition and scope of geography taught in Ugandan schools.

A minority of the participants emphasize that geography in its present form does not contribute much to the education of a child; nor does it contribute to the development of the country as a whole, due to inappropriate content and methods used in teaching. They do not suggest, however, the integration of critical perspectives in the teaching of geography.

(b) Contribution of Geography to Education and Development

Most of the students believe the subject fulfills the general aims of education: citizenship, literacy, numeracy, reading and writing, reasoning and international understanding. Other participants, in addition to the above, emphasize its contribution to the development of a child's power of observation, recording and synthesis of geographical knowledge. The lecturers stress geography's contribution in identifying resources and methods of exploiting them. This stresses knowledge of resources, therefore, necessitating the study of the physical environment at the expense of people's welfare, which is environmental determinism. This again is a modernization paradigm which leaves out important aspects that geography contributes to education and development, and influences the way geography is taught in schools and NTCs.

In the transformative paradigm, geography can promote democracy and social justice in citizenship education, not just by obeying and serving the authority. It promotes understanding, tolerance, and friendship among all nations, races and religious groups. This includes the ethnic cultures and cultures of other people. It encourages awareness of the increasing global interdependence of peoples and nations, and makes students aware of their rights and duties, upon individuals, social groups and nations toward each other. Environmental education ensures and emphasizes that individuals become aware of the impact of their own behavior and that of their societies. Only a minority of the participants pointed out a few aspects from the critical paradigm with regard to geography's contribution to education. The above aspects of geography's contribution to education and development should be emphasized in order for the curriculum designers to write relevant syllabuses.

(c) The Concept of Development

Most of the participants define development as an evolutionary process where people move from the traditional ways of living to a modern western style. Development is associated with the production of goods and services leading to a high Gross National Product, and believe that alleviation of poverty can be achieved by the injection of capital into the economy. For example, they suggest that agriculture could be improved by the importation of tractors, fertilizers, better breeds of animals (exotic) and the preservation of wildlife. In Uganda there are various heifer projects whereby young, promising, expectant cows are given to farmers who do no farming, and who later also give a pregnant cow to another farmer.

Some participants believe in importation of high technology and some approve the teaching of development schemes as they appear in the current geography syllabus. This is actually a modernization paradigm where the participants do not question importing inappropriate high technology. They believe in the trickle down theory when stressing the importing of capital, technology and managerial skills which end up in the hands of a few privileged people. A few, however, are critical when they show concern for freedom of choice, expression and association, and respect for human rights. A minority of both students and teachers show concern for the masses living in absolute poverty and injustices, and actually need urgent help. This minority stresses relevant education as a key to solving problems of poverty, and believe the vicious circle of poverty is the main cause of poverty among people in the south.

Development, according to the participants' voices, means economic growth which can be measured using the GNP. as an indicator of such growth. This being a quantitative measure leaves out aspects of life that cannot be quantified. A minority show concern for the masses living in poverty, but do not suggest using the Human Development Index (HDI) as an alternative measure of development to allow for aspects of development not measured by the GNP.

This kind of development, as defined by the majority of participants, serves northern countries which manufacture high technology and import all raw materials from the south. The people in the south, except for the few elites, are left with nothing, since their environment is degraded; all products are exported, and imported machinery takes all income earned. For a critical paradigm of development, the people's welfare is taken into account. Development for the people would mean considering food production, nutrition, medical care, and an equal and just distribution of the country's resources among the people. There would be the participation of all citizens in decision-making, which directly implies political participation and sharing of power. The modernization paradigm has negatively influenced geography education in Uganda and has to be changed in order to make it relevant to the needs of Ugandans.

(d) Geography Knowledge in the NTC Programs

(i) Objectives. The participants interpret the objectives differently, but there is a tendency by the majority to follow the UNEB way of interpretation, since this body controls the evaluation procedures in both Secondary Schools and NTCs. This reflects a vagueness of the objectives, which are quantitative for the purpose of making the syllabus measurable. Cultural, social and political aspects of human life which are not measurable are left out. The syllabus also reflects a gender bias by neglecting or degrading the role of women in development. The objectives neglect the participation of students in the learning/teaching situation, and do not allow reflection, action, or dialogue. The values and attitudes of students are not explored, and this too restricts the students. Although there are some qualitative objectives included, the teaching and learning tends to be quantitative for the purposes of evaluation. Process objectives which would make geography education more relevant are actually lacking. The majority of the participants do not question the underlying paradigm in the curriculum. A small minority believes the objectives are vague and wrongly interpreted. The objectives of this syllabus could be made more democratic and participatory to allow lecturers and students to contribute to the shaping and redesigning of the curriculum in the NTCs. Overall, there is a close correlation of content and expectations between the NTC syllabus and the O-level syllabus 273, thereby constraining the college program objectives into rather narrow school-based objectives.

(ii) Content and Knowledge. The major conclusions with regard to geographical knowledge and content in the NTC program are that the regional geography approach recommended is environmental deterministic with little emphasis on people and their welfare. The focus on economic development emphasizes exploitation of resources at the expense of care and preservation of environment. Whether and how modernization might impact negatively on the spiritual, cultural, social and political development of people are not explored. While "international understanding, interdependence and cooperation of people" are also emphasized, there is little equal concern for equitable distribution of resources and benefits among all peoples in the world.

Themes for regional study are developed with a strong assumption of "trickle-down" that is, benefits from modernization programs and projects will flow down to the poor majorities in the countries concerned. The "positive" role played by large scale investment , such as in irrigation and ranching schemes, urbanization, transnational corporations, and tourism is also a constant theme. In contrast, this section of the syllabus does not mention the value of local food production, subsistence agriculture and ecological sustainability. The realities of exploitation and suffering in urban slums or rural areas, factories and plantations are not mentioned. In examining North experiences, the syllabus promotes the use of advanced scientific and technology in the exploitation and development of resources, machinery, chemicals and large-scale production of goods. Little sensitization occurs in terms of the quality of human life as a result of outcome of these modernization activities. The topics do not reveal the political, social and economic relationships between different social classes of North Americans. They do not reveal the breakdown in community life, crime and diseases of affluence and poverty, and the culture of self-centred and individualistic consumerism North America.

Overall, both the syllabus content and sample examination questions reflect an avoidance of controversial issues of economics, development, politics, culture and welfare of people in the selection of content, issues which would help the student teachers in posing alternative paradigms when they embark on their Geography teaching in schools. Most of the content in regional Geography too abstract and not related to the everyday life of lecturers and students; contemporary issues of social concern such as poverty, hunger, and social justice are not included. This explains why the study of geography in communities around the NTCs is not encouraged. Finally the college programs show a serious lag in relating geography education to societal change. They are not concerned with major issues of survival and sustainable development of Uganda and other countries studied.

These conclusions on content and knowledge orientation are also validated by the data obtained on student research projects and textbooks used in the programs. Invariably, the problems and methodology employed are top-down. The topics and methods used in research do not recognize the lives and needs of the poor, and the results would tend to be beneficial to those in authority or power. Most of them used quantitative methods which do not consider ecological, cultural, social and political variables which affect the welfare of people. Women are marginalized in the research reports I read and the students I interviewed. The majority of the participants do not suggest any alternative criteria or method of selecting topics and methods of research. Geography education could challenge this myth of a value-free scientific objectivity and take into account important variables of gender, class, age and race/ethnicity

(e) Questions of Pedagogy

(i) Assessment: According to the lecturers, the O-level syllabus 273 is the yardstick for the NTC examinations. Examinations in the NTCs are not democratic because, in addition to being determined by UNEB, ITEK decides what should appear in the external examinations. For the students and lecturers, passing examinations is the most important aspect since the results will grade both of them. This has rendered it difficult for NTCs to question the criteria used in the evaluation of students, because the system is highly centralized, with ITEK. at the head and the NTCs below, competing with each other. Bloom's Taxonomy of Educational Objectives is used by UNEB. to design O-level questions. This means students' different experiences, value systems and attitudes are not measured, since they are not emphasized in the taxonomy. O-level examinations are designed for the purpose of ranking students for selection to go on for further studies. In the NTCs, however, other kinds of evaluations which give feedback to students and lecturers and shape the curriculum are more appropriate for teacher training colleges. Secondly, examinations which take into account the differences in social, political, economic and cultural context of the ten NTCs, are more suitable than having all of them face the same examinations. A minority of participants are not in favour of using syllabus 273 as a model for NTC. examinations. They prefer each college designing its own examination questions, and devising other means of maintaining academic standards in NTCs.

(ii) School Practice: Time allocated to school practice is six weeks each year, so by the end of the course the student has twelve weeks of teaching experience. Because of a shortage of funds, however, the students are out in the field for only four weeks each year with the lecturers being able to supervise them for only two weeks. School practice under the global education framework would be longer and part of the teacher training programs where practicing teachers in schools participate in training teachers. Since the number of lecturers is small they are not able to supervise all the student teachers; some first year students are not supervised at all. Because of the large numbers of students, both private and government secondary schools are used for school practice. Some of the private schools are so inadequately equipped that they are not fit for school practice. In rural areas the schools are too far scattered in remote areas with poor transport, resulting in those students not getting adequate supervision. Some schools do not have qualified geography teachers and some administrators are not cooperative, making it difficult for students to get support from the schools where they go for school practice. The majority of the participants agrees that student teachers are not adequately supervised.

Most of the students do not know how to make a scheme of work (Appendix 10) as they were only given a handout to use as an example. The lesson objectives are short, measurable and achievable implying that those variables which are not measurable are ignored. Most of the student teachers find it difficult to put into practice the knowledge and skills acquired from colleges in Secondary Schools. The student teacher is made to believe that these restrictive rules should be followed, with no room for initiative or creativity. In most cases, a lecturer supervises a student he/she does not know in a situation unfamiliar to him/her. The majority of students interviewed do not like the way school practice is assessed. The evaluation forms do not provide for a situational analysis of the school or classroom where the teaching/learning takes place. The forms are too technical, implying that teachers are not people but factors of production in a training program. Assessment forms should also be used to give feedback to the student teachers and colleges for the purpose of improving the students' performance and teacher training programs. Two weeks are not enough to allow lecturers to get to know each individual teacher, let alone the cultural, social, economic and political character of the Secondary Schools. The assessment form evaluates general methods of teaching, not methods unique to particular subjects, like geography.

Geography students are not supervised by geography lecturers but by any lecturer who happens to go to that particular school. There is normally no time after the lesson for lecturers to hold discussions with student teachers for the purpose of giving feedback, leading to improvement. The purpose of evaluation here is strictly to pass the examinations. The evaluation of school practice in observing two lessons under the above conditions is not valid. None of the lecturers interviewed agrees with the procedures used in supervising geography student teachers, and they desire drastic changes. School practice could start early in the training programme to allow students to get familiar with conditions in Secondary Schools and with the children they are going to teach. Such knowledge would be used in their training.

All the officers in the Ministry of Education and Sports agree that the money and time given for school practice is not enough, but under the present circumstances the government has no funds and can do nothing about it. School practice could be improved by reducing the number of student teachers, and by making school practice part of the training program so that there is a continuous assessment done jointly with practicing teachers.

(iii) Issues of control and administration of the NTC programs by one institution, ITEK were areas of concern if a more democratic strategy of teacher education in geography is to be attained. The Geography curriculum panel also do not function properly because of poor communication, and the lack of funds and support by Directors of the colleges. This has led to tendencies of centralized control by ITEK as to what should be taught and what types of evaluation procedures ought to be used. This is an industrial-technocratic paradigm which regards lecturers/teachers as effective machines in the transfer of already made knowledge, rather than being creators of knowledge with their students. The lecturers in the NTCs cannot widen the academic base of their students since it would be against the standard set by the O-level examination syllabus 273.

(iv) Sources of Geography Knowledge. The course outlines have sections on references, but the books listed are not available in the library, nor in the Secondary Schools where the students do their school practice. The reference books for lecturers are adequate according to what I saw at the NTC. Kakoba Reference Library, however, books considered essential for syllabus 273 are very rare according to students and lecturers. Very few local writers have written textbooks to supplement what is available, and most textbooks are written by foreigners who publish outside of Uganda. The textbooks emphasize the physical environment, high technology for agriculture and industry, and contain very little on food production, local culture, politics, relationships between people and the welfare of people. The modernization paradigm is emphasized in these textbooks. Other sources of geography should be emphasized, such as novels, music and musical instruments, crafts, the museum and, most importantly, the area outside the classroom and college campus. If these are encouraged, geography clubs will be very popular in the NTCs and Secondary Schools, instead of being non-existent as they are now. These other sources of geography will bring out the various cultures of the students in the class and school/college as a whole. Indigenous knowledge, which is crucial in environment education, will easily be brought into the classroom and utilized to the maximum. The students will be motivated, and their self-esteem raised, since they will be contributing to their learning. The majority believe knowledge acquired from such sources may not be geographical but sociological, religious and political; therefore, it is irrelevant to geography as a discipline in education. A minority of participants pointed out the importance of fieldwork, crafts and the museum, but were quick to emphasize that examination questions make such sources irrelevant.

(v) Learner-centered pedagogy. Overall, the pedagogical emphases in the methods component of the program focus on banking and authoritarian strategies. Critical thinking is therefore not fostered. The lack of learner-centered methods is attributed to poor training of teachers, a lack of teaching materials and textbooks , poor facilities and the examination syndrome.. Even where fieldwork is practiced, both student teachers and lecturers were aware of limitations that reinforce passive learning. A significant finding confirms the role that former authoritarian schooling and educational experiences of the research students may have played in shaping their identity towards pedagogical practices.

The study therefore suggests an urgent need for considering new theories of learning/teaching (e.g. cooperative learning, constructivism, competence-based curriculum, to name a few) as being the most important in transforming education to make it more meaningful and relevant. As the above data indicate, many respondents in the study attributed the lack of use of learner-centred pedagogy, despite its endorsement in the syllabus, to a variety of institutional and systemic factors, including short contact hours between lecturers and student teachers, large classroom sizes, excessive stress on examinations, a lack of textbooks/materials, and poor role-modeling in Ugandan schools. Without disregarding these barriers as legitimate and serious, nevertheless an alternative paradigm on Geography teacher education would also explore possibilities for reforms that can alleviate to some degree these difficulties.

(vi) Relevance of the curriculum. All of the students believe that the content and textbooks used in the NTCs are irrelevant because they do not relate to the local needs of the children. A minority believe that external examinations and methods used make the curriculum irrelevant. Some lecturers and members of the N.C.D.C. geography panel believe the curriculum is irrelevant because the objectives are vague and, therefore, are interpreted differently by people who use it. Other members of the N.C.D.C. geography panel believe it is irrelevant because it is not related to local people and their activities such as subsistence agriculture, pastoralism, crafts pottery and degradation of the environment. Most participants do not, however, mention human rights, environment, culture and politics. All officers in the Ministry of Education and Sports believe the content and textbooks are irrelevant, because for the last twenty years there has been no policy to guide the N.C.D.C. panels, which the Commissioner of Education referred to as 'almost dead'.

A minority of participants believe the curriculum is relevant since it motivates the students to work hard to reach the level of industrialized countries of the north. The geography curriculum, however, will be more relevant to the people of Uganda if it emphasizes appropriate affordable technology which the majority can easily acquire. It would be more relevant if the needs of the majority of people are considered, for example, the production of food for food security, and the equal and just distribution of resources for the welfare of people. The curriculum would be more relevant if it questioned the current high technology development schemes which do not consider the preservation of the environment and welfare of people working in such schemes. If gender and environment are integrated in the curriculum it would be more critical and relevant. In a global education framework, the pedagogical orientation of the teachers is considered very important in that it develops in the student a critical 'mind'. In this case, cooperative methods of teaching would make geography more relevant to the needs of the student. The evaluation procedure and questions which encourage competition for the purpose of selection make the curriculum irrelevant. This was particularly emphasized by a minority of participants who believe that UNEB examinations encourage rote-learning among the students.

(f) Global Issues and Problems

The majority of students value indigenous knowledge for its potential for the protection of the environment. However, they know little about the culture of other people in Uganda let alone the neighboring tribes. All of them agree that the cultures of various tribes in Uganda, should be taught in schools to promote inter-cultural understanding. Some lecturers and other participants despise local culture and refer to it as "primitive"; others believe traditional culture is a hindrance to development and change in rural areas. Responses from the majority of participants, especially student teachers, reveal that there is a lot of valuable local knowledge about Ugandan culture which can effectively be utilized in geography classrooms.

On the issues of poverty and land redistribution, the majority of students believe poverty can be alleviated by better methods of production using appropriate technology, access to education, capital as well as initiatives and creativity of people. These are solutions normally suggested and sponsored in the modernization paradigm. Most lecturers and other participants have the same view. However, few mentioned an unequal and unjust distribution of wealth and social services to the poor in rural and urban areas which are actually decaying. A minority believe that land should be redistributed to the landless to allow them to produce food for consumption. Very few suggested investment in rural areas to create jobs and raise income. A minority also suggested better communication systems in terms of better roads and railway lines. None suggested industrial development in rural areas instead of concentrating it in urban areas only.

With regard to women, all the participants are aware that women are producers of labor and do a lot of domestic work. The majority agree that they grow most of the food in Uganda and contribute more than half in cash crop production. Most of the participants also agree that there is discrimination against women in Ugandan societies, and that they often face violence at the hands of men. A minority suggested changing laws that discriminate against women. Some members of the geography panel do not agree with the figures available in books concerning their contribution to agricultural production. None of the participants, however, suggested gender education in the curriculum.

On street children, the participants were of the view that overpopulation, prostitution, political instability and wars, poverty and insecurity, unemployment in rural areas, and violence in homes are the main causes of street children. A few mentioned the breakdown in traditions which prevents extended families from looking after orphans. A few believe that people, including children, move out of rural areas voluntarily and they should be blamed for what happens to them. This is again an orientation towards the modernization paradigm. The minority are aware and sensitive to the unequal distribution of resources but none of them mentioned the elite in decision-making positions, who tend to neglect the rural and urban poor areas.

On militarism and refugees, the majority of participants believe a lack of understanding between groups of people, greed for power, and poverty are the major causes of war leading to the flow of refugees. A few participants believe it is the north countries, through the selling of weapons in an effort to maintain jobs, that promote war in the southern countries. The participants strongly believe that if people have a spirit of reconciliation, it is possible to negotiate and avoid wars. The majority advocate for the expenditure on agriculture, industry, and the welfare of people rather than on military weapons. The majority of participants are within the critical paradigm on the issues of militarism and refugees. A few believe that with governments spending money on military weapons, their enemies will be deterred. Although the majority are sympathetic to women and children (who tend to suffer during wars), and the movement into a refugee status, they resent the fact that refugees make a negative impact on the economy, social services and the environment in general of the host country.

Concerning the world economic system and the southern countries, the majority of participants believe that northern countries are exploiting the south through policies of the IMF. and World Bank. A minority of participants believe that southern countries gain something, especially with the recent IMF. policies of privatization; not many connect these policies with the poverty, famine and hunger, and the environmental degradation in the south.

On environmental care, famine and hunger, the majority of participants believe that natural disasters, drought, floods, diseases, poor soil, traditional beliefs, lack of technology, illiteracy and the lack of storage facilities cause famine, hunger and environmental degradation. Only very few students associate food insecurity with the production of cash crops for export to the north. Unequal distribution of wealth, including food, was not mentioned by the participants. The role of the local elites and government policies are not emphasized by any of the participants. No-one mentioned the implications of inappropriate technology on the employment and welfare of people when advocating for technology to eliminate hunger. Neither the unequal trade or debt crisis are mentioned. The majority are of the view that exotic trees should be planted to supply fuel wood for charcoal and firewood, in order to prevent people from cutting down indigenous trees.

Most participants are skeptical about the applicability of high technology in peasant farming. The majority advocate for appropriate technology which the majority of farmers can afford to buy. These participants are actually within the critical paradigm, while the minority are in the modernization paradigm. A few, however, are of the view that damming rivers for the purpose of improving transport and irrigation should be applied in regions with poor communication systems.

The majority believe that overpopulation in southern countries is caused by a lack of family planning information and services. A minority also believe that this lack of education causes girls to marry early, leading to the production of many children. Others emphasize a traditional culture of polygamy or religion which prevents the use of family planning devices, high infant mortality rates and a lack of population laws and regulations. None mentioned poverty or a lack of appropriate technology as major causes of high fertility rates in southern countries.

On spirituality and peace, most participants associate this with religion, and they believe that a lack of commitment to religion, selfishness, and poverty causes violence and insecurity among people. They do not conceptualize spirituality in the perspective of a shared concern for new life, needed to prevent the destruction of the planet or to ensure a better quality of life for all living things. The majority of participants do not conceptualize peace from a woman's perspective, which emphasizes violations against women in the form of rape, wife battery, fertility rights, property and children's rights. The prevention and conservation of the earth as a home of humankind, which brings about peace to people, is also not mentioned by participants.

The majority of the participants value global education and do not object to integrating it across the curriculum, although they have identified some obstacles. These include the following: the lecturers in the NTCs do not have a wide content base or methods of teaching recommended by global education; the lack of teaching materials in the NTCs and schools; and the large classes in both schools and the NTCs makes implementation difficult. Education in Uganda is highly centralized with a large bureaucracy that needs to be more conscientized; otherwise they might oppose it. A small minority are opposed to global education and prefer teaching geography in its traditional paradigm.

Recommendations

The following recommendations are offered as ways that might preserve geography education programs and can better meet the needs of future teachers and lecturers in the NTCs. An ecological approach to education must be adopted by the Uganda education system in order to make it transformative. Education will be relevant if the lecturers and student teachers look at it as a personalized and direct understanding gained through intimate involvement in the real setting of a school/child. A setting can be defined as a place in which the occupants engage in particular activities in particular roles for particular periods of time. The teacher, therefore, has to understand and analyze the interrelations among the major settings for the learner at a particular point in his or her life. The concrete social structures, both formal and informal, impinge upon the immediate settings containing the learner and thereby influence and even determine what goes on there. These structures include the major institutions of the society as they operate at the local community level, such as the world of work, mass media, government agencies at local and national levels, the distribution of goods and services, communication and transportation facilities and informal social networks. Institutions of culture such as the economic, social, educational, legal and political systems are the concrete manifestations. (Bronferibrenner, 1976; Freire, 1985)

Geography is a subject concerned with people, their interactions, relationships, movements in time and space, their culture and political/legal organizations, as well as their welfare. If geography education has to contribute to the development of a country and its citizens, an ecological approach must be adopted. The current geography curriculum has to be transformed to make it more applicable to the lived experiences of the learners and educators. The methods and evaluation procedures also have to be changed.

(a) Geography Aims And Objectives

The geography programs ought to be reoriented toward the critical/transformative paradigm. This will mean changing perspectives and views underlying the aims and objectives of the program and their implementation. The aims, goals, and the social context in which these goals are to be applied are issues to be critically scrutinized, and directions for transformation articulated. This could include reflection on educational goals as well as geographical objectives in the program, and identifying if there is any concern for justice, equity, democracy and the welfare of people. The aims and objectives should reflect the contribution of students to their learning as well as to the curriculum as a whole. This means empowering prospective teachers to become professionals who are transformative intellectuals able to challenge given assumptions. Those student teachers who go through a process of critical conscientization during their training will be able to see the hidden contradictions and realities in their jobs as well as in a broader society. Participatory and dialogical pedagogical strategies are essential for the attainment of this transformation. This requires conscientizing the people responsible for designing the geography curriculum in Uganda, such as the National Curriculum Development Centre officials and members of the geography panel as well as the NTC geography panel. The Ministry of Education and Sports officers are also responsible for the implementation of the curriculum in schools, which, of course, includes high ranking officials including the Minister, commissioners, inspectors and many others. These should be conscientized in order to accept global education across the curriculum. The general public also needs to be informed and conscientized to accept such changes in the curriculum.

(b) Geography Content

Increasing the teachers' knowledge base may increase their self-esteem and feelings of adequacy. Geography teachers would learn history, environment, politics, culture, sociology, psychology, economics, etc. which would enable them to handle global education issues in geography. Schools and colleges are structured to be agents of transmission of knowledge. This has to be changed so that educational institutions are looked at as structures where knowledge is created by both teachers and learners. It is also very important for the student teachers to develop the attitude of seeing themselves as active producers, rather than passive consumers of given and pre-existing scientific knowledge. As participants in forming knowledge, they bring feelings of autonomy, initiative, and energy to formal aspects of the discipline. For example, topics like agriculture could be taught, starting with the students' knowledge about food and cash crop production in Uganda. By getting to know what the students already know about agriculture, it is easier to introduce means and ways of improving on animal and crop husbandry in Uganda. This would mean dwelling more on indigenous crops like sweet potatoes, millet, and simsim instead of beans before moving on to cash crop production on a larger scale. This would be more appropriate than abruptly introducing new methods of farming like irrigation schemes, tea growing, etc., which are very abstract to the students. This is very important since most of the food crops are grown using traditional methods and very few farmers can afford to use the modern scientific methods. NTC students ought to study this traditional knowledge of cultivation which is more sustainable instead of rushing to the highly technological, expensive, and exotic types of farming.

A topic such as agriculture will bring in more issues of land tenure, culture, social and economic organization of people in particular areas of Uganda; gender can also be introduced here since women do most of the cultivation of cash and food crops in southern countries. Structural violence, in the form of issues like property rights, distribution of resources, environmental degradation, and human rights could be integrated in this topic. Appropriate technology could be encouraged by the use of small dams and other simple irrigation techniques, instead of considering only big dams as they appear in the current geography syllabus. Teacher training colleges, therefore, should train teachers with a wider knowledge base. This will enable them to carry out dialogues with their students, rural and urban communities, as well as elites in decision-making positions on a variety of issues.

Student teachers should become aware of the modernization nature of the geography content, methods and textbooks. The students could then be empowered to develop positive attitudes towards their cultures, indigenous knowledge and languages instead of resenting them. Discussions would enable them to identify foreign cultures that could be learned while preserving the local ones.

Reorientation would mean developing appropriate attitudes and values which would enable prospective teachers to actively intervene for environmental issues within the context of distributive social justice at the local, national and global level. Our lives depend on the planet and, therefore, there is a need to create a social and political will that is committed to using both the political and tax structures to change our lives. This means a study of the ways and lives of people, how they relate to each other, and their political organization, all of which affect the way they use the resources of the earth. The legal system in Uganda and how it affects people must be internalized by lecturers and students. This will enable them to question laws which negatively affect people and the environment. The earth must be viewed in a different way by all its inhabitants. It is a living organism with a diverse ecosystem which must not be disturbed; otherwise it will be destroyed along with human life. The teachers could then integrate this in their geography lessons, speak to it, and challenge the dominant development policies which are detrimental to the environment. The colleges should carry out concrete activities in the local communities regarding the environmental intervention required.

For gender issues, establishment of conditions which are gender sensitive and beneficial to both men and women are necessary. Students must become familiar with various tribal and religious laws which affect women. This will mean examining the gender orientation of the textbooks used in geography, sensitizing lecturers to gender-related issues, and motivating both male and female students to overcome gender biases in their learning. NTCs, through the classroom and active community involvement, should advocate for gender equity. NTCs should employ more female lecturers to act as role models in the colleges and the rural communities where the majority of these institutions are located. All lecturers and college administrators should be gender sensitized for the purpose of promoting gender education.

(c) School Practice

More opportunity should be given for field experience, a longer practicum component, and a closer integration of course work and practicum components. Practice teaching might become more focused and meaningful if personal histories were explored prior to the practicum, opening up the curriculum so that the student teachers could contribute to their learning. Teacher education is the only profession in which every single student brings at least thirteen years of vocational observation and participation to lecture rooms in professional education. They bring to the colleges unquestioned views of education, and, if not allowed to reflect and act on them, they are taken back to the schools and become the cement for the status quo. Strategies of self-reflection could be encouraged. Student teachers could be helped to examine their own biographical histories and how they fit in with the theories of teaching/learning in classrooms. The students need to be exposed to schools early in their training and should be integrated into schools at the beginning of their program. The students should practice teaching during their holidays in the secondary schools near their homes. Head Teachers of such secondary schools should be encouraged to actively participate in training teachers by welcoming such students. Education courses could then use the students' experience of working with children as well as with theoretical abstracts. More care and funds should be given to student teaching in college programs. The transfer of skills and theories from campus to practicum might be improved. Teacher programs should encourage teachers to think of themselves as creative artists whose craft is instruction. An exciting facilitator/teacher is a communications artist who could engage students in provocative dialogue.

The student teachers should be encouraged to establish peer support groups which could meet once a week to discuss their practicum experiences in the absence of adequate supervision. This would enable them to freely express their doubts and concerns in an non-threatening atmosphere with others in the same situation. Lecturers should provide an atmosphere of empowerment, giving students authority (as appropriate) over their education, their activities and environment. Dialogue with lecturers is one method of empowering students. This means time for teachers to plan and learn from each other, for collaborative planning and reflection must be provided in the program.

In the absence of adequate supervision, the NTCs should work with Secondary Schools to establish cooperating teachers to be used during the practicum. Cooperating teachers would then plan together with the NTC administration the practicum, and later hold meetings with supervisors once or twice over the period of the practicum. Lecturers' salaries should be increased for purposes of motivation. Cooperating teachers can be paid a small stipend to motivate them by secondary school administration as a contribution to the training programs for teachers.

Reorienting geography to the community would mean developing in students a critical attitude, making them active agents in questioning, defining and shaping human relationships in Uganda today. The students would then actively participate in debates and reforms in the broader socio-economic and political sphere, and seek to advance equality and democracy in society. Students' minds would be broadened if classrooms were used as microcosms of society, providing opportunity for action research around classrooms as well as societal issues. It would mean teaching the students in democratic, cooperative, experiential and community-based schools. Geography clubs should be promoted as these would include community work in their activities. A teacher's academic program would need components in ethnography and cultural anthropology. This means situating critical literacy and dialogue inside the language, themes and cognitive levels of the students. Experience in cross-cultural communications would be valuable for teachers who are likely to lead classrooms with diverse student populations. There is a need to study literatures outside the official canon, e.g. from tribal groups, women's writings, etc. Guest speakers from the community should be effectively used in the training of geography teachers.

(d) Methods Of Teaching

The program should move towards a critical/transformative pedagogy where the students' participation and involvement in their learning is increased. The application of a critical pedagogy empowers student teachers to critically examine both the nature of assumptions underlying content, and those underlying a policy of student participation and involvement (and whether these are liberative or not). This calls for genuine forms of democracy and redistribution of power, and means liberating power holders and lecturers from practicing forms of democracy and participation. The expository methods are underpinned by selfish interests of power and the manipulation of students; there should be an increase in student involvement and participation in decision-making and policy related issues.

Cooperative learning and teaching should be encouraged in colleges. This would transform the climate in colleges and secondary schools of Uganda, encouraging cooperation, cohesion and teamwork among students instead of competition. The process involves promoting positive interdependence by dividing the workload, providing joint rewards, holding individuals accountable and getting students actively involved in helping each other master the topics being studied. Increasingly, group work could revolve around inquiry, problem-solving, literature, poetry, journal writing, drama, debates, projects, song composition, and role plays. Through these methods students develop interpersonal skills that lend themselves to connecting content areas. Cooperative learning fosters social skills, positive peer relationships and higher levels of self-esteem in all students. In Uganda, where students come from various backgrounds and tribal groupings, it would enhance the integration of minority students with special needs into regular classrooms.

Collaboration would help produce instruction that enhances critical thinking across the curriculum. Critical thinking involves the ability to raise powerful questions about what is being read, viewed or listened to. The students would develop the ability to assess information and make creative critical judgments. The students and lecturers in NTCs would become colleagues, learning from each other. For example, on a topic like population composition in Uganda, a theme on cultural diversity could be discussed by students cooperatively, through debates and group discussions. The students could discuss how ethnicity is viewed in their society; traditional values that should be maintained, modified or replaced. They could debate on current issues as they appear in newspapers, e.g. racism in South Africa, or ethnicity in Rwanda and Yugoslavia. The students could role play on issues of conflict resolution in ethnic conflicts. They could also do research in groups at the library or among the communities around the college/schools on various cultures in Uganda.

(e) Textbooks And Teaching Aids

Production of learning materials would be encouraged, including writing academic papers and texts for use in the NTCs to combat the acute shortage of books. Production of teaching/learning materials situated within the broader social, political and economic powers of the colleges and schools is vital. Students and lecturers could collect specimens of rocks and bring them into the classroom. Since clay is abundant in Uganda, it could be used to make models of landforms. Students could make models of traditional fishing boats using clay, wood and banana fibers. Sand trays or a space in the school compound could be provided where sand would be used by geography teachers to demonstrate the various aspects of landforms. Students could also bring traditional music and other cultural artifacts to the class. The National Curriculum Development Centre and the NTCs should work in collaboration with lecturers and students to develop teaching aids using local materials for the geography curriculum.

National Teachers Colleges should be given money by the government so that they can carry out research and publish their findings in the form of textbooks/reading materials for their students. Currently, University lecturers have the privilege of receiving research grants; this should be extended to National Teachers Colleges. This will motivate college lecturers to write texts basing them on concrete data from rural areas. In addition, the lecturers and students would be enabled to contribute to the development of the geography curriculum in both NTCs and secondary schools. The student teachers should be given the opportunity to reflect upon and examine issues such as which reading materials are included and excluded from the reading list, and why. Conscientization is one way of empowering them.

(f) Teacher Education

Most of the participants believe lecturers in the NTCs are not properly oriented as teacher educators. The aims and objectives of teacher education should reflect the contributions of student teachers to the curriculum. Aims and objectives of teacher education that recognize teachers as people with feelings and personal needs should be incorporated into the current programs. The geography curriculum should be widened and made different from that of UNEB. O-level examination syllabus 273. Using a global education framework, NTC. graduates should be global educators. In-service courses for lecturers should be conducted regularly so that they become exposed to new trends and ideas in geography. The colleges should also subscribe to professional magazines/newsletters/periodicals so that the most recent research data is available to both students and lecturers. Education should be perceived as a life-long process, therefore NTCs should create space for informal, formal, and non-formal education. In this way, both lecturers and students would be encouraged to do research and contribute articles to such magazines. Professional organizations, for example, a geographic association, could be initiated in Uganda. Students should be encouraged to form committees which will empower them to question unjust policies in the education systems. NTCs should work closely with communities, encouraging them to form cooperatives to empower themselves to challenge the unjust power structures which negatively affect them. Lecturers and students should be encouraged to do research related to global education. The salaries and conditions of service of lecturers need improvement so that lecturers could concentrate more on their jobs.

(g) Evaluation

Evaluation procedures should be changed to enable continuous assessment to be more effective. Using the O-level examination syllabus 273 as a model for designing NTC examinations should not be encouraged. O-level examinations are designed for the purpose of selecting students to go to higher institutions of learning. Each college should design its questions basing themon what the students have been exposed to. Examinations should give feedback to the students for the purpose of improving their academic and professional development instead of using them for ranking the students. Evaluation forms used in school practice should be modified to give feedback instead of being used to pass or fail students.

Research projects carried out by NTC students as part of the continuous assessment process should be a bottom-up type of research. Students doing research in urban areas can look at the welfare of people in slums and in industries, and access of the poor to social services. In rural areas, they could study the peasant cultivators, landless labourers, women and youths as well as access to social services. They could also research the initiatives, creativity and contributions of the rural communities to the development of the country. Research could focus on the needs of women employees in both rural and urban areas. In plantation agriculture, for example, students can look at the Kakira sugar works, tea estates, especially at the workers who plant, weed and harvest these crops, and take into consideration the effects of chemicals used by the plantation owners on the soil and people.

If geography is a subject concerned with people and their welfare, then issues of gender, human rights, politics, culture, and environmental sustainability should be reflected in the examination questions. For example, photographs used in examinations could show people living in absolute poverty or suffering from famine, hunger, or the effects of war. Interpretation and discussion of such photographs would make students and the public as a whole more aware that there are people greatly affected by the structural violence caused by unjust systems at local, national and international levels.

(h) Integration of Global Education in Geography.

Most participants believe global education should be integrated in geography education as well as across the curriculum. Global education can be defined in short as education for awareness, or education for global interdependence. Using this definition, the world is viewed as a single system in which educational approaches used should prepare citizens to cope with domestic and international issues. According to UNESCO. recommendations, the guiding principals of education for international understanding should promote tolerance, friendship, peace and understanding. These positive attitudes towards peace, justice, and human rights should be instilled in young people and organized around the curriculum by incorporating global perspectives in regular courses. The development of political knowledge, beliefs and values is a lifelong process that begins in the early stages of life, therefore, schools have a big role to play. Global education, however, should be a concern of every parent and teacher; it should provide experiences that teach students to think of themselves as both individuals and as members of the planet earth. Countries like Canada, Sweden, Mexico, Italy, Philippines, West Germany, U.S.A., and Britain have instituted global education programs in schools. (Hicks, 1988; Toh & Cawagas, 1987; Selby & Pike, 1989; Osler, 1995; Reardon, 1988).

Uganda has gone through two decades of physical and structural violence and these wounds have not yet healed. Uganda is made up of many tribes and ethnic groups, and needs a type of education that would enable people to live in harmony. Uganda is dependent on North countries in terms of her economy, as well as other social sectors such as education and health. She has a large debt (like that of many other developing countries) and this necessitates diversifying her economy as well as foreign markets. Issues of environment, children, women, poverty, peace and security, human rights, militarism, aid, transnational corporations all affect her and need to be addressed because few people understand their causes and how to solve them. The need to control, which is embedded in the dominant masculine consciousness of patriarchy, has been little examined by our male dominated psychology. The people of Uganda are part of a complex web of worldwide interconnections. As citizens, consumers, workers and investors, and members of religious, ethnic and cultural groups, we live in a multi-boundary world, with a diversity of global systems in which each of us affects and is affected by all others. (Kniep, 1989; Reardon, 1990; Hicks, 1988; Greig, Selby and Pike, 1987)

Uganda needs to internationalize her education so as to prepare tomorrow's generation to live in an interdependent world, and to make young Ugandans more aware of international development issues. Transformation is needed so that the new generation walks new pathways of both mind and spirit. In Uganda, global education could be integrated in both the University and other institutions of learning, where people have been trained to think in categories, hierarchies, and in parts rather than in wholes. Teachers have a greater multiplier effect since they end up getting in touch with many more people. National Teachers Colleges are, therefore, better suited to integrate global education in their curriculum since they train both secondary and primary school teachers.

Integration of global education in geography will make this already wide discipline too large to fit into the tight NTC programs. For this reason, geography should be made a double main subject to accommodate global education issues and the learner-centered pedagogies. This would also require changes in the Ministry of Education and Sports regulations governing the college calendar, providing even more time for school practice in Secondary Schools so that collaboration and planning with school teachers is possible.

Education aid to South countries should be oriented toward global issues and problems. Uganda should initiate or strengthen links and networks with other nations which already have global education programs. The donors should be conscientized and encouraged to expose students to global education by sending them to universities that offer global education courses. The recipient countries are given the chance to choose universities carefully, so that those which expose students to global education are selected. The students should also be encouraged to do research related to global education although, at times, the recipient country has no chance to choose, especially if such aid has conditions attached. However, countries such as Canada, through CIDA., support global education and sustainable development. Canada should, therefore, be conscientized to give more support to southern countries. Donors such as the IMF, World Bank, and individual countries of the north should be conscientized by global education supporters to become sensitive to issues affecting both people and the planet when approving funds for projects in South countries. The elites in the recipient countries who negotiate such loans and grants should also be conscientized.

Implications for Future Research

Based on the findings above, future research could be directed toward the following areas;

(1) The current research on geography education is just one of the programs offered in the NTCs. It is, therefore, necessary that further studies be carried out in other subject programs and the teacher education program in general. A global education framework should be used and promoted across the curriculum in NTCs. Further studies in the critical/transformative paradigm and action research methodology would be especially relevant so that teachers are actively involved in examining their professional realities. This would help in formulating transformative policies and strategies for teacher training in the NTCs.

(2) The role of communities in teacher training should be investigated for purposes of situating the colleges in the social, political and cultural contexts to enable them to work with the people in improving their conditions.

(3) A survey of aid programs in education in order to find out what they are currently providing, is a very important way of identifying the negative effects such programs have on people.

Conclusion

This study has shown that geography programs in the NTCs have significant limitations in terms of aims and objectives, content, methods, evaluation and resource materials such as textbooks. Time and funds to run the programs with large numbers of student teachers are other limitations. The lecturers are inadequately trained as teacher trainers and consequently are poorly paid, affecting the quality of teachers graduating from the colleges. The relationships between students and lecturers/administrators, and between the colleges and ITEK., are very undemocratic, contributing to limitations in the system. If these limitations were clear to the people involved, such as officials in the Ministry of Education and Sports, ITEK. and the NTCs, then revisions and innovations could be implemented to transform geography programs in the NTCs.

The study has also demonstrated the theoretical utility of examining a specific discipline such as Geography in terms of paradigms of understanding the knowledge and content of the discipline. Similarly, it has shown the effectiveness of an integrated research methodology which considers not only content and knowledge but also questions of pedagogy, and which is sensitive to a range of sources of awareness and professional identity . Finally, the study has provided considerable data to recommend the integration of global education perspectives in Uganda teacher education programs to help to transform geography education in Uganda.

References

Adams, D. and Hamm, M. (1996). *Cooperative Learning: Critical Thinking and Collaboration Across the Curriculum.* Springfield: Charles C. Thomas Publisher.

Ahmed, Z. (1994). Rural Women and Their Work: Dependence and Alternatives for Change. *International Labour Review* 123(1), 71-85.

Akande, B.E. (1987). Rural-Urban Comparisons On Female Educational Aspirations in South-Western Nigeria. *Comparative Education Review* 23(1), 75-84.

Ake, C. (1981). *A Political Economy of Africa.* London: Longman.

Alatas, S.C. (1993). On The Indigenization of Academic Discourse. *Alternatives,* 307-338.

________. (1977). *Intellectuals in Developing Societies.* London: Frank Cass and Company Ltd.

Alberta Global Education Project. (1996). *Global Interconnections. A Resource Handbook For High School Social Studies Teachers.* Edmonton: Maheu, B., Hein, D., and Osborne, J.

Allahar, A.C. (1989). *Sociology And The Periphery Theories And Issues.* Toronto: Garamond Press.

Alladin, J. (1989). Teaching For Global Awareness. *The Alberta Teachers' Association Magazine,* 6-11.

Altbach, P.G. (1975). Literary Colonialism: Books in The Third World. *Harvard Educational Review* 15(2), 226-236.

Anderson, J. (1985). Ideology In Geography. *Antipode* 17(2&3), 28-34.

________. (1986). Education And Late Capitalism. *Interchange* 17(4), 85-89.

________. (1978). Image, Experience And Personal Geography: Some Implications For Education. *Geographical Education* (3).

Annaline, William D., and Hoover, Randy L. (1989). Field Experience As a Vehicle For Transformation: Ideology Education and Reflective Practice. *Teachers Education* 34(2), 42-48.

Anselim, Strabliss and Corbin, J. *Basics of Qualitative Research.* London: Sage Publications.

Anyon, J. (1979). Ideology And United States History Textbooks. *Harvard Educational Review* 49(3), 561-596.

Apple, M. (1975). Scientific Interests and the Nature of Educational Institutions. In Pinar (Ed.), *Curriculum Theorizing* (pp. 12-30). Berkeley, C.A.: McCutcheon.

________. (1985). The Culture And Commerce Of Textbooks. *Curriculum Studies* 17(2).

Argent, T.M., Gaile, G. and Rose, W.R. (1991). The Need For Assisted Self-Settlement; A Proposed Framework For Refugee Assistance in Sub-Saharan Africa. *Journal of Third World Studies* 1, 25-52.

Bacchus, K.M. (1989). The Concept of Global Education. *Alberta Teachers Association Magazine*, 19-22.

________. (1988). Global Education in Perspectives In Peace And Security. [Occasional Paper 88.1, pp. 26-32]. Department of Educational Foundations, University of Alberta, Edmonton, Alberta.

________. (1981). Education Expansion. *Comparative Education* 17(2), 215-227.

________. (1975). *Some Observations On Social Structure And Craft Training In Economically Less Developed Countries.* The International Conference of I.C.I. Report.

________. (1981). Education For Development In Underdeveloped Countries. *Comparative Education Review* 17(2), 215-227.

Bainbridge, K. (1989). Descriptive Assessment Is Transparent Assessment. *Geographical Education* 6(1), 17-18.

Baker, Randall. (1975). Developing and the Pastoral People of Karamoja, North-Eastern Uganda. In T. Monad (Ed.), *Pastoralism In Tropical Africa* (pp. 187-205). London: Oxford University Press.

Ballas, D.J. (1976). American Landscape; A Geographical Perspective. *Places* 3, 5-12.

Bale, J. (1986). Sports in Geography. In J. Fein & R. Berger (Eds.), *Teaching Geography For A Better World* (pp. 134-192). Sidney: The Jacaranda Press.

Banugire, F.R. (1989). Employment, Incomes, Basic Needs and Structural Adjustment Policy in Uganda. 1980-1987. In Onimode Bade (Ed.), *The IMF, The World Bank, The African Debt and the Social and Political Impact* (pp. 95-110). London: Zed Books Ltd.

Barnard, H.C. (1933). *Principles and Practice of Geography Teaching*. London: University Tutorial Press.

Barnes, J.J. and Duncan, J.S. (Eds.). *Writing Worlds*. London: Routledge.

Barya, J.B. (1993). The New Political Conditionalities of AID. An Independent View From Africa. *IDS Bulletin* 24(4), 16-23.

Bbuye, R.B. and Kagoda, A.M. (1993). *A History of East and West Africa Simplified for O-level Classes in Uganda.* Kampala, Uganda: Unpublished.

Beane, J.A., and Apple, M. (1995). The Case For Democratic Schools. In J.A. Beane & M. Apple (Eds.), *Democratic Schools* (pp. 1-25). Alexandria: Association for Supervision and Curriculum Development.

Beane, J.A., and Apple, M. (1995). Lessons From Democratic Schools. In J.A. Beane & M. Apple (Eds.), *Democratic Schools* (pp. 101-105). Alexandria: Association for Supervision and Curriculum Development.

Beauchamp, L. (1994). *Student Evaluation*. Department of Secondary Education, University of Alberta, Edmonton, Alberta.

Beer, F.A. (1990). The Reduction of War and the Creation of Peace. In P. Smoker, R. Davis & B. Munske (Eds.), *A Reader in Peace Studies* (pp. 15-20). London: Pergamon Press.

Beyer, L.E. (1988). *Knowing and Acting*. London: Falmer Press.

Biddle, D.S. (1976). Paradigms in Geography: Some Implications For Curriculum Development. *Geography Education* 2, 403-419.

________. (1969). The Changing Nature of Geography In The Secondary School. *Geography Education*, 1-16.

________. (1978). Is Desertification A Myth. *Geography*, 106-113.

Billinge, M., Gregory, D., and Martin, R. (1984). *Recollections of a Revolution*. London: MacMillan Press.

Binns, T. (1995). Geography In Development: Development In Geography. *Geography* 80(4), 303-322.

________. (1994). *Tropical Africa*. London: Routledge.

Blachford, K. (1979). Morals And Values In Geographic Education: Towards A Methaphysic Of The Environment. *Geographic Education* 3.

Bligh, D. (1990). *Assessment In Higher Education*. London: Cassell Educational Limited.

Boserup, E. (1990). Population, The Status of Women And Rural Development. In G McNicoll & M. Cain (Eds.), *Rural Development and Population Institutions and Policy* (pp. 45-59). New York: Oxford University Press.

Boulding, K.E. (1990). Peace Theory. In P. Smoker, R. Davis, & B. Munske (Eds.), *A Reader In Peace Studies* (pp. 3-8). London: Pergamon Press.

Bowers, C.A. (1982). The Reproduction of Technological Consciousness: Locating The Ideological Foundations Of A Radical Pedagogy. *Teachers College Record* 83(4), 529-557.

Boyd, R. (1994). Empowerment of Women In Uganda, Real Or Symbolic. *ROAPE*, 105-109.

Brett, E.A. (1994). Rebuilding Organization Capacity In Uganda Under The National Resistance Movement. *The Journal of Modern African Studies* 32, 53-80.

Brock-Utine, B. (1989). *Feminist Perspectives on Peace and Peace Education.* London: Pergamon Press.

________. (1983). *International Money and Capitalist Crisis.* London: Heinmann.

Bronfenbrenner, V. (1976). The Experimental Ecology of Education. *Teacher's College Record* 78(2), 157-204.

Bunker, S.G. (1988). Lineage, District and Nation: Politics in Uganda's Bugisu Cooperative Union. In D.W. Brokensha & P.D. Little (Eds.), *Anthropology of Development and Change in East Africa* (pp. 43-58). London: Westview Press.

Burbach, R. and Flynn, P. (1980). *Agribusiness in the Americas.* New York: Monthly Review Press.

Burgess, R. (1985). The Concept Of Nature In Geography And Marxism. *Antipode* 17(2&3), 68-78.

Burnley, J. (1988). Teaching for Human Rights in Geography. In J. Fein & R. Berger (Eds.), *Teaching Geography For A Better World* (pp. 57-89). Sidney: Jacaranda Press.

________. (1988). Conflict. In D. Hicks (Ed.), *Education For Peace* (pp. 53-70). London: Routledge.

Burns, R. (1981). Knowledge For Peace And Education. *Bulletin of Peace Proposals* 12(2), 115-122.

Burt, E.C. (1985). *Curriculum And Resistance In The Public Sphere. Language, Community, And Responsibility, Monograph No. 6.* Department of Secondary Education, University of Alberta, Edmonton, Alberta.

Butterfield, G.R. (1977). Geography and the Scientific Method. In Lee Roger (Ed.), *Change and Tradition: Geography's New Frontiers* (pp. 13-22). Department of Geography, London Queen Mary College.

Calderhead, J. (1988). *Teachers' Professional Learning.* Sussex: Falmer Press.

Calderhead, J. and Gates, P. (1993). *Conceptualizing Reflection in Teacher Education.* London: Falmer Press.

Canadian Commission to UNESCO. (1973). *Canadian Reactions To The Faure Report.* [Occasional Paper No. 12].

Carlson, D. (1987). *Teachers as Political Actors: From Reproductive Theory to the Crisis of Schooling.*

Carnoy, M. (1982). Education For Alternative Development. *Comparative Education Review*, 26(2), 160-177.

Carnoy, M. and Samoff, J. (1988). *Education and Social Transition in the Third World.* Princeton: Princeton University Press.

Carson, T. (1985). *Curriculum Implementation As School Improvement. What Are The Possibilities For Praxis.* [Occasional Paper No. 36], Department of Secondary Education, University of Alberta, Edmonton, Alberta.

________. (1988). Peace Education: A Canadian Perspective. [Occasional Paper No. 1], *Edmonton Institute On Peace Education*, 26-28.

________. (1989). Beyond Curriculum Management. *Alberta Teacher's Association Magazine*, 52-56.

Carson, T. and Brouwer, W. (1985). *Dimensions of Peace Education* . [Occasional Paper No. 39], Department of Secondary Education, University of Alberta, Edmonton, Alberta.

Castle, E.B. (1968). *Growing Up In East Africa.* London: Oxford University Press.

________. (1970). *The Teacher.* London: Oxford University Press.

Cawagas, V. (1988). Peace Through People's Power. The Philippine Experience. WCCI. Philippines Chapter. [Occasional Paper 88.1], *Perspectives In Peace And Security*, 19-25. Department of Educational Foundations, University of Alberta, Edmonton, Alberta.

Chambers, R. (1983). *Rural Development. Putting The Last First.* London: Longman.

Choldin, E. (1989). An Experiment In Professional Development. *Alberta Teacher's Association Magazine*, 26-28.

Chomsky, N. (1991). The Struggle For Democracy In A Changed World. *Review of African Political Economy* (50), 12-20.

Chorley, R.J. and Haggett, P. (1965, 1970). *Frontiers in Geographical Teaching.* London: Methuen.

________. (1967). *Models in Geography.* London: Methuen.

Chung, B.M. (1981). *Development Education: An Afterthought.* [Occasional Paper No. 18], Department of Secondary Education, University of Alberta, Edmonton, Alberta.

Cleaver, H.M. (1992). *The Contradictions of the Green Revolution.* London: Monthly Review Press.

Cloutier, M. (1990). *Peace Education: How Did We Get It And What Does It Mean.* Master of Ed. Thesis, University of Alberta, Edmonton, Alberta.

Commonwealth Secretariat. *Engendering Adjustment For The 1990s.* London: Marlborough House.

Coombs, P.H. (1985). *The World Crisis in Education*. Oxford: Oxford University Press.

Court, D. (1991). Teaching Critical Thinking. What Do We Know? *The Social Studies*, 115-119.

Court, T. (1992). Critique of the Dominant Developm[illegible] Paradigm. *Development* 2, 42-45.

Cowie, P.M. (1978). Geography: A Value Laden Subject In Education. Towards A Metaphysics of the Environment. *Geography Education* 3.

Currie, J. (1983). Family Background, Academic Achievement, and Occupational Status In Uganda. *Comparative Education Review*, 14-29.

Curts, R.J. (1976). Woody Guthrie And The Dust Bowl. *Places* 3, 12-18.

Daugherty, R. (1990). Assessment In Geography Curriculum. *Geography*, 289-301.

Davey, C. (1990). The Newspaper As A Textbook. *Geography Education*, 7-11.

Daws, L. Geography and Minority Groups. In J. Fein & R. Berger (Eds.), *Teaching Geography For A Better World* (pp 239-253). Sidney: The Jacaranda Press.

de Waal, A. (1993). War And Famine In Africa. *IDS Bulletin* 24(4), 33-40.

Deger, S. (1985). *Journal of Developing Areas* 20, 37-48.

Desai, N. (1981). Education for Disarmament: A Ghandhian Perspective. In M. Haavelsrud (Ed.), *Approaching Disarmament Education* (pp. 52-70). Guilford: Westbury House.

Dewey, J. (1933). *Education and Experience*. New York: MacMillan.

Diamond, P.C.T. (1991). *Teacher Education As Transformation*. Buckhingham: Open University Press.

Dima, S.A.J. (1993). The Role of the Cooperative Movement in Socio-Economic Development. The Case of Equatoria Region In Sudan. *Journal of Third World Studies* X, 78-88.

Dore, R. (1976). *The Diploma Disease*. London: George Allen and Uniwin Ltd.

Drake, C. (1983). Teaching About Third World Women. *Journal of Geography*.

Ediger, M. (1993). Approaches To Measurement And Evaluation. *Studies In Educational Evaluation* 19, 41-50.

________. (1994). Measurement And Evaluation. *Studies In Educational Evaluation* 20, 169-174.

Edwards, G. (1996). Alternative Speculation on Geographical Futures. *Geography* 81(3), 217-224.

Eide, A. (1986). The Human Rights Movement and the Transformation of the International Order. *Alternatives* 11, 367-402.

Eisner, E.W. (1979). *The Use of Qualitative Forms of Evaluation For Improving Educational Practice*. Department of Secondary Education, University of Alberta, Edmonton, Alberta.

________. (1992). Education For Peace Through Geography. In M. Naish (Ed.), *Geography Education*. London: University of London Press.

Eliou, M. (1976). Educational Inequality in Africa: An Analysis. *Prospects*, 6(4), 558-570.

Elliot, J. (1993). *Reconstructing Teacher Education*. London: Falmer Press.

Fagan, R. (1990). Whatever Happened To Economic Geography. *Geographical Education*.

Favaro, B. (1981). *Recasting A Program in Teacher Education From A Critical Perspective*. [Occasional Paper No. 19], Department of Secondary Education, University of Alberta, Edmonton, Alberta.

Fein, J. (1993). *Education for the Environment*. Victoria: Deakin University Publishing Unit.

________. (1980). Operationalizing The Humanistic Perspective In Geography Education. *Geographical Education* 3, 507-553.

Fein, J. and Slater, F. (1985). Four Strategies for Value Education in Geography. In D. Boardman (Ed.), *New Directions in Geography Education* (pp. 171-186). London: Falmer Press.

________. (1986). Introduction. *Teaching Geography For A Better World*. Sidney: The Jacaranda Press.

Feller, M. (1994). Open-Book Testing And Education For The Future. *Studies In Educational Evaluation* 20, 235-238.

Ferguson, P. (1989). A Reflective Approach To The Methods Practicum. *Journal of Teacher Education* XXXX(2), 36-41.

Filstead, W.J. (1977). *Qualitative Methodology*. Chicago: Markham.

________. (1977). Qualitative Methods: A Needed Perspective in Evaluation Research. In T.D. Cook & C.S. Reichardt (Eds.), *Qualitative and Quantitative Methods in Evaluation Research*. Beverley Hills: Sage Publications.

Flain, M. and Choido, J.J. (1994). A Novel Approach. *Journal of Social Sciences*.

Fleuret, P. (1988). Farmers, Cooperatives and Development Assistance in Uganda. In D.W. Brokensha & P.D. Little (Eds.), *In Anthropology of Development and Change In East Africa* (pp. 59-76). London: Westview Press.

Foord and Gregson. (1986). Patriarchy: Towards A Reconceptualization. *Antipode* 81(2), 186-221.

Ford, L.R., and Henderson, F.M. (1974). The Image of Place in American Popular Music. *Places* 1, 31-37.

Freire, Paulo. (1976). *Pedagogy In Process.*

________. (1972). *Pedagogy of the Oppressed.* New York: Herder and Herder.

________. (1985). *The Politics of Education; Culture, Power and Liberation.* Massachusetts: Bergin and Garvey Publishers Inc.

________. (1992). *Pedagogy of Hope.* New York: Continuum Publishing Company.

________. (1972). Education: Domestication or Liberation. *Prospects* 11(2).

________. (1975). Cultural Action For Freedom. *Harvard Educational Review*, Cambridge, Massachusetts.

________. (1976). Literacy And The Possible Dream. *Prospects* 6(1), 68-71.

Freire, P. and Macello, D. (1987). *Literacy: Reading The Word and The World.* Massachusetts: Bergin and Garvey Publishers Inc.

Fryer, S. (1994). *Canadian Universities/International Development.* Masters of Ed. Thesis, University of Alberta, Edmonton, Alberta.

Furley, O.W. (1988). Education in Post-Independence Uganda, Change Amidst Strife. In H. Hausen & M. Twaddle (Eds.), *Uganda Now* (pp. 175-184). London: James Currey.

Furley, O.W. and Watson, T. (1978). Indigenous Education. In O.W. Furley & T. Watson (Eds.), *A History of Education in East Africa.* New York.

Gartrell, B. (1988). Prelude to Disaster. The Case of Karamoja. In D.J. Johnson & D.M. Anderson (Eds.), *The Ecology of Survival* (pp. 193-217). Boulder: Westview Press.

________. (1984). *The Impotent Image.* London: Falmer Press.

Gates, P. (Ed.) *A Practical Avenue For Reflection In Teacher.* London: Falmer Press.

George, S. (1990). The Third World Debt Crisis. In P. Smoker, R. Davis & B. Munske (Eds.), *A Reader in Peace Studies* (pp. 127-132). London: Pergamon Press.

________. (1989). *A Fate Worse Than Debt.* New York: Pergamon Press.

________. (1976). *How The Other Half Dies.* Ringwood: Penguin.

Gertzel, C. (1980). Uganda After Amin; The Continuing Search For Leadership And Control. *African Affairs* 79(317), 461-489.

Gilbert, A. (1995). Debt, Poverty and the Latin American City. *Geography* 80(4), 323-333.

Gilbert, R. (1984). Images of Society And Analysis of Ideologies In The Social Subjects. *Theory and Research in Social Science Education* 12(3), 1-15.

Gilligan, C. (1979). Woman's Place In Man's Life Cycle. *Harvard Educational Review* 49(4), 431-446.

Giroux, H.A. (1989). *Schooling for Democracy. Critical Pedagogy in the Modern Age.* London: Routledge.

________. (1980). Critical Theory and Rationality In Citizenship Education. *Curriculum Inquiry* 10(4), 329-366.

________. (1986). Authority, Intellectuals, And The Politics Of Practical Learning. *Teachers College Record* 88(1).

Giroux, H. and Maclaren, P. (1986). Teacher Education and the Politics of Engagement: The Case For Democratic Schooling. *Harvard Educational Review* 56(3), 213-235.

Glaser, B. and Strauss, A.L. (1977). Discovery of Substantive Theory: A Basic Strategy Underlying Qualitative Research. In W.J. Filstead (Ed.), *Qualitative Methodology*. Chicago: Markham.

Gleave, M.B. (Ed.) (1992). *Tropical African Development.* New York: Longman with John Wiley and Sons Inc.

Gold, J.R., Jenkins, A., Lee, R., Monk, J., Riley, J., Shepard, I., Uniwin, D. (Eds.). (1991). *Teaching in Higher Education.* London: Basil Blackwell Ltd.

Goodson, I. (1989). *Studying Curriculum: Towards A Social Constructionist Perspective*. [Occasional Paper No. 44], Department of Secondary Education, University of Alberta, Edmonton, Alberta.

Gough, N. (1986). Alternative Futures in Geographical Education. In J. Fein & R. Berger (Eds.), *Teaching Geography For A Better World* (pp. 268-283). Sidney: The Jacaranda Press.

Goulet, D. (1977). *The Cruel Choice*. New York: McClelland and Stewart Ltd.

Grant, C.L. (1993). *Dissonance And Image In Teacher Training*. Masters of Ed. Thesis, University of Alberta, Edmonton, Alberta.

Graves, N.J. (Ed.) (1972). *New Movements in the Study and Teaching of Geography.* London: Maurice Temple Smith Ltd.

________. (1982). Introduction. *New UNESCO Source Book for Geography Teaching* (pp. xvii-xxii). Paris: Longman/The UNESCO Press.

________. (1984). *Geography in Education*. London: Heinemann Educational Books.

________. (1990). *Initial Teacher Education: Policies And Progress*. London: Kogan Page.

________. (1982). The Evaluation of Geography Education. In N.J. Graves (Ed.), *New UNESCO Source Book for Geography Teaching* (pp. 314-363). Paris: Longman/The UNESCO Press.

________. 1985). *Teacher Education In Adversity*. Professional lecture. London.

________. (1979). Contrasts and Contradictions In Geographical Evidence. *Geography* 285(64) Part 4, 259-267.

________. (1978). Changes In Attitudes Towards The Training Of Teachers Of Geography. *Geography*, 69-78.

Graves, N.J., Dunlop, J.O., and Torney-Purta, J.V. (Eds.). *Teaching for International Understanding, Peace and Human Rights*. Paris: The UNESCO Press.

Graves, N.J., Naish, M., Slater, F., Kent, A., and Hilton, K. (Eds.) (1982). *Geography in Education Now*. London: Heinemann Educational Books.

Gray, E.D. (1994). Choosing Life, Theology, Gender And The Earth. *Global Education* 2, 9-18.

Greene, M. (1983). In Search Of A Critical Pedagogy. *Harvard Educational Review* 56(4), 427-441.

Greig, S., et al. (1987). *Earthrights*. London: Kogan Page.

Guba, E.G. (1981). Criteria For Assessing The Trustworthiness Of Naturalistic Inquiries. *ERIC/ECTJ* 29(2), 75-91.

Guba, E.G. and Lincoln. (1981). *Effective Evaluation*. London: Jossey-Bass Publishers.

Gun, C.D. (1974). The Non-Western Novel As A Geography Text. *The Journal of Geography*, 27-34.

Haavelsrud, M. (Ed.). (1981). *Approaching Disarmament Education*. Guilford: Westbury House.

Habermas, J. (1970). *Towards A Rational Society*. Boston: Beacon Press.

Hall, R. (1982). Key Concepts: A Reappraisal. *Geographical Education* 4, 25-34.

Hartwig, H. (1992). National Identification and International Understanding. In M. Naish (Ed.), *Geography Education* (pp. 131-143). London: University of London Press.

Harvey, M.E. and Holly, B.P. (Eds.). (1981). *Themes in Geographic Thought.* London: Croom Helen Ltd.

Hayford, A.M. (1982). The Geography of Women. *Antipode* 17(2&3), 136-145.

Haynes, F. (1986). Curriculum, Democracy and Evaluation. *Teachers College Record* 88(1), 81-94.

Hayter, T. (1981). *The Creation of World Poverty.* London: Pluto Press.

Heck, S.F. and Williams, O.R. (1984). *The Complex Roles of the Teacher.* New York: Teacher's College Press.

Henley. (1989). Language and Humanistic Geography. In F. Slater (Ed.), *Language and Learning in the Teaching of Geography* (pp. 162-174). London: Routledge.

Herbertson, A.J. (1905). The Major Natural Regions. *Geographical Journal* 25.

________. (1915). Regional Environment, Heredity and Consciousness. *Geographical Teacher* 8.

Heyneman, S. (1985). Education During A Period Of Austerity In Uganda. *Comparative Educational Review* 27(3), 403-413.

________. (1979). Global Perspectives in the Curriculum: A Geographical Contribution. *Geography* 64(238), Part 2, 104-114.

________. (1993). Mapping The Future: A Geographical Contribution. *Teaching Geography* 18.

Hicks, D. (1986). Teaching Geography For A Better World. In J. Fein & R. Berger (Eds.), *Teaching Geography For A Better World* (p. 3-13). Sidney: The Jacaranda Press.

________. (1986). The Geography of War and Peace. In J. Fein & R. Berger (Eds.), *Teaching Geography For A Better World* (pp. 221-238). Sidney: The Jacaranda Press.

________. (1988). *Education For Peace.* London: Routledge.

Hicks and Townley, C. (Eds.). (1982). *Teaching World Studies.* London: Longman.

Holt-Jensen. (1988). *Geography: History and Concepts.* London: Paul Chapman.

Huckle, J. (1980). The Daintree Rainforest: Developing Political Literacy Through An Environmental Issue. In J. Fein & R. Berger (Eds.), *Teaching Geography For A Better World* (pp. 109-133). Sidney: The Jacaranda Press.

________. (1981). Geography and Values Education. In Walford (Ed.), *Signposts For Geography Teaching.* London: Longman.

________. (1983). Values Education Through Geography: Towards A Curriculum Rationale. *Geographical Education* 3, 533-544.

________. (1983). *Geographical Education: Reflection and Action.* Oxford: Oxford University Press.

________. (1990). What We Consume: The Curriculum Rationale. *Geographical Education*, 31-36.

Hudson, B. (1985). The New Geography And The New Imperialism 1870-1918. *Antipode* 17(2&3), 35-41.

I.D.R.C. (1992). *Education in 101 Technologies From The South Or The South.* Ottawa: I.D.R.C.

Ihonvbere, J. (1994). *Ethnic And Racial Studies* 17(2), 42-60.

Institute For Social Research and Development. (1994). *People Empowerment and Environment Management: The Pumoluyo Experience in Negros Island.* Bacolod City: Gonzaga, V.L., Patriarca, E.P. Jr., and Tan, G.D.J.

International Charter. (1995). International Charter on Geographical Education. *Teaching Geography* 20(2), 95-99.

James, E.P. (1969). The Significance Of Geography In American Education. *Journal of Geography*, 473-481.

Jenkins, R. (1994). Rethinking Ethnicity: Identity, Categorization And Powers. *Ethnic And Racial Studies* 17(2) 197-223.

Johnson, L. (1990). New Courses For A Gendered Geography. *Australian Geographical Studies* 28(1), 16-28.

Johnston, R.J. (1993). Meet The Challenge Make The Change. In R.J. Johnston (Ed.), *The Challenge For Geography: A Changing World, A Changing Discipline* (pp. 151-180). Oxford: Oxford Blackwell Publishers.

Kabedde, G. (1990). In P. Smoker, R. Davis, and B. Munske (Eds.), *A Reader In Peace Studies* (pp. 119-126). London: Pergamon Press.

Kabera, J.B. (1987). The Refugee Problem In Uganda. In J.R. Rogge (Ed.), *Refugees.* New Jersey: Rowman and Littlefield Publishers.

________. (1995). *The Population Situation, The World And Uganda. An Overview.* Paper presented at the N.T.C. Training Workshop for Geography lecturers.

Kagoda, A.M. (1989). *The Attitudes of Students and Teachers Towards The Methods Commonly Used in Teaching Geography in Selected Secondary Schools of Uganda.* Unpublished Masters of Ed. Thesis, Makerere University Kampala, Uganda.

Kelly, I. (1984). Objective Activism. *Geographical Education* 4(3), 219-223.

Khadiagala, G.M. (1993). Uganda's Domestic And Regional Security Since The 1970s. *Journal of Modern African Studies* 31(2), 231-255.

King, U. (1993). *Women And Spirituality*. Pennsylvania: The Pennsylvania State University Press.

Kirk, D. (1986). Beyond Limits Of The Theoretical Discourse In Teacher Education. Towards A Critical Pedagogy. *Teaching And Teacher Education* 2(2), 155-167.

Kitchener, H. (Ed.). (1962). *Uganda, The Educated African*. London: Heinemann Press.

Kline, G. (1993). The Role of the Cooperative Movement in Socio-Economic Development: The Case of Equatoria Region in Sudan. *Journal of Third World Studies*, X(1), 78-88.

Kniep, W.M. (1989). Essentials For A Global Education. *American Teacher's Association Magazine*, 12-15.

________. (1986). Defining A Global Education. *Social Education*, 437-446.

Knowles, G. (1993). Life Histories Accounts As Mirrors. In J. Calderhead & P. Gates (Eds.), *A Practical Avenue For Reflection In Teacher Education* (pp. 70-92). London: Falmer Press.

Knowles, G. and Holt-Reynolds, D. (1991). Shaping Pedagogies Through Personal Histories In Preservice Teacher Education. *Teachers College Record* 93(1), 87-113.

Knowles, G. and Hoofler, V.B. (1989). The Student Teacher Who Wouldn't Go Away. *Journal of Experiential Education* 12(2).

Kohn, C.F. (1982). Real Problem-Solving. In N.J. Graves (Ed.), *New UNESCO Source Book For Geography Teaching* (pp. 114-140). Paris: Longman/The UNESCO Press.

Lambert, D. (1992). Toward A Geography of Social Concern. In M. Naish (Ed.), *Geography and Education* (pp. 144-162). London: University of London Press.

Lamme, A.J. The Use of Novels In Geography Classrooms. *Journal of Geography*, 66-68.

Latour, L.W. (1973). *Inquiry Experiences in Geography*. Massachusetts: Ginni and Company Ltd.

Laws, K.J. (1983). The Past As A Key To The Present Historical Geography In The Curriculum. *Geographical Education* 4, 93-106.

Lee, R. (Ed.). (1977). *Change and Tradition: Geography's New Frontiers*. Department of Geography. London: University of London Press.

Levine, G.J. (1986). On The Geography Of Religion. *Trans. Inst. Bri. Geographers* (11), 428-440.

Lindsay, F. (1989). Assessment in Geography. *Geographical Education* 6(1), 6-9.

Macanlay, J. (1986). Beyond Patriarchy: A Class-Based Explanation Of Women's Subordination. *Antipode* 18(3), 311-321.

MacKenzie, F. (1992). Development From Within? The Struggle To Survive. In Taylor and MacKenzie (Eds.), *Development From Within: Survival in Rural Africa* (pp. 1-32). London: Routledge.

Mackie, R. (1990). *Literacy and Revolution. The Pedagogy of Paulo Freire.* Pluto Press.

Mackinder, H.J. (1988). The Scope And Methods Of Geography. *The Royal Geographical Society*. London.

MacLaughlin, J. (1986). State-Centered Social Sciences And The Anarchist Critique: Ideology in Political Geography. *Antipode* 18(3).

MacNamara, V. (1989). *The Future Direction of Community School Teacher Education.* Department of Education, Papua, New Guinea.

Magnerella, P.J. (1991). Promoting Peace, Human Rights And Economic Development In The Third World. *Journal of Third World Studies* X(i), 53-69.

Maguire, M. (1993). Women Who Teach Teachers. *Gender And Education* 5(3), 269-281.

Mamdan, A. (1976). *Politics and Class Formation In Uganda.* New York: Monthly Review Press.

Mamdani, M. (1987). Extreme But Not Exceptional: Towards An Analysis of the Agrarian Question In Uganda. *Journal of Peasant Studies* 1, 191-225.

________. (1993). University Crisis And Reform: A Reflection On The African Experience. *Review of African Political Economy* (58), 7-19.

Manning, L. and Lucking, R. (1991). The What, Why And How of Cooperative Learning. *The Social Studies*, 120-125.

Marsden, W.E. (1976). *Evaluation The Geography Curriculum.* New York: Longman.

Massey, D. and Allen, J. (Eds.). (1984). *Geography Matters.* Cambridge: Cambridge University Press.

Maxwell, A.J. (1992). Understanding And Validity In Qualitative Research. *Harvard Educational Review* 2(3).

Maxwell, S. and Famando, A. (1989). Cash Crops In Developing Countries. The Issues, The Facts, The Policies. *World Development* 17(11), 1677-1708.

Mazrui, A.A. (1978). Ethnic Tensions and Political Stratification in Uganda. In *Ethnicity In Modern Africa* (pp. 47-68). Boulder: Westview Press.

________. (1978). The African University as a Multinational Corporation: Problems Of Penetration And Dependency. In G.P. Kelly & P.G. Altbach (Eds.), *Education And Colonialism* (pp. 191-210). New York: Longman.

________. (1974). *A World Culture And The Black Experience*. Seattle: University Of Washington Press.

________. (1975). *Soldiers And Kinsmen in Uganda*. London: Sage Publications.

________. (1990). *Cultural Forces in World Politics*. London: Heinemann.

________. (1994). Global Apartheid: Structural And Overt. *Alternatives* 19, 185-193.

Mbilinyi, M.J. (1975). Educational Innovations In Tanzania. *The International Conference of I.C.C. Report.*

McDowell, L. (1989). Women, Gender and the Organization of Space. In D. Gregory & R. Walford (Eds.), *Horizons in Human Geography* (pp. 136-151). New Jersey: Barnes and Nobel Books.

Meagher, K. (1990). The Hidden Economy. Informal And Parallel Trade In North Western Uganda. *Review of African Political Economy* (47), 64-83.

Milbray, W., Cohen, D., MacLaughlin, J. and Talbert, J.E. (Eds.). (1993). *Teaching For Understanding*. San Francisco: Jossey-Boss.

Milne, K. (1983). The Role of Geography In Environmental Education Curriculum: Challenges For The Next Decade. *Geographical Education* 4.

Mische, P. (1987). A Global Spirituality. In Macy (Ed.), *Solutions For A Troubled World.* Boulder: Earthscan.

Mitchell, J.A. (1993). The Continuing Crisis In North-South Relations. *Journal of Third World Studies* X(1), 386-405.

Mitchell and Draper. (1982). *Relevance and Ethics in Geography*. Essex: Longman.

Momsen, J.H. (1991). *Women and Development in the Third World.* London: Routledge.

Momsen, J.H. and Townsend, J.G. (Eds.). (1987). *Geography of Gender in the Third World.* New York: State University of New York Press.

Monk, J. (1993). Integrating Women Into The Geography Curriculum. *Journal of Geography*, 66-70.

Monk, J. and William-Fein. (1986). Stereoscopic Visions: Perspectives On Gender Challenges for the Geography Classroom. In J. Fein & R. Berger (Eds.), *Teaching Geography For A Better World* (pp. 186-220). Sidney: The Jacaranda Press.

Mook, R.R. and Jamison, D.T. (1988). Educational Development in Sub-Saharan Africa. *Finance and Development*, March, 22-24.

Morrish, M. (1994). Checking Up On China. *Teaching Geography* 19(2), 51-57.

Moser, C. (1989). Gender Planning In The Third World. Meeting Practical And Strategic Gender Needs. *World Development* 17(11), 1799-1825.

Mudoola, D. Religion And Politics In Uganda; The Case Of Busoga 1900-1962. *African Affairs* 77(306), 22-35.

Nalwanga-Sebina, A.J. (1991). The Viability of Resistance Committees For Women In Uganda. In M. Suliman (Ed.), *Development Strategies For Africa* (pp. 156-163). London: Institute for African Alternatives.

The National Resistance Movement Achievements. *Magazine* 1(2), 1986-1994.

National Teachers College, Kakoba. (1995). *Magazine.*

National Teachers College, Kakoba. (1995). *Development Plan 1994-2010.*

National Teachers College, Kakoba. (1992). *Kashenyi Mixed Farm Project.* [Research Report N.T.C. Kakoba, Research Project]. Mbarara, Uganda: Twinamasiko.

National Teachers College, Kaliro. (1995). *Magazine.*

National Teachers College, Kaliro. (1995). *Land Use in Kamuli Village.* [Research Report N.T.C. Kaliro, Research Project]. Kaliro, Uganda: Kirabe, S.

National Teachers College, Kaliro. (1995). *Industrial Growth and Development in Jinja.* [Research Report N.T.C. Kaliro, Research Project]. Kaliro, Uganda: Komakech, B.A.

National Teachers College, Kaliro. (1992). *The Study of Accelerated Erosion in Gombe Sub-County, Mpigi District and its Impact On Environment.* [Research Report N.T.C. Kaliro, 92/Kal/124]. Kaliro, Uganda: Nakku, E.

National Teachers College, Kaliro. (1995). *The Market in Jinja Town.* [Research Report N.T.C. Kaliro, Research Project]. Kaliro, Uganda: Naluswa, H.

National Teachers College, Kaliro. (1995). *Kakira Sugar Works.* [Research Report N.T.C. Kaliro, Research Project]. Kaliro, Uganda: Olido, M.

National Teachers College, Kaliro. (1994). *The Growth of Bata Shoe Industry In Uganda* [Research Project]. Kaliro, Uganda: Anyinge, J.

Neiman, A.M. (1986). Curriculum, Democracy And Evaluation. *Teachers College Record* 88(1), 64-80.

Nelson, N. (1979). *Why Has Development Neglected Rural Women.* Oxford: Pergamon International Library.

Nemiroff, G.H. (1992). *Reconstructing Education. Towards A Pedagogy of Critical Humanism.* Ontario: OISE Press.

Newmann, F.M. (1981). *Visions Of Participation To Guide Community Learning.* [Occasional Paper No. 17], Department of Secondary Education, University of Alberta, Edmonton, Alberta.

Nicoll, A., and Elger, W. (1994). Understanding Development: Learning With Ghanaian Teachers. *Teaching Geography* 19(1), 32.

Nkonoki, S. (1991). The Ecology Strategies for Environment-Balanced Development. In M. Suliman (Ed.), *Alternative Development Strategies for Africa* (pp. 35-41). London: Institute for African Alternatives.

Nyambe, J. (1996). *Teacher Education/Societal Transformation, Namibia.* Masters of Education Thesis, University of Alberta, Edmonton, Alberta.

Nzomo, M. (1993). The Gender Dimension of Democratization in Kenya. Some International Linkage. *Alternatives* 18, 61-73.

O'Brien, M. (1989). *Reproducing The World.* London: Westview Press.

Obbo, C. (1980). *African Women.* London: Zed Press.

O'Connor, A. (1988). Uganda: The Spatial Dimensions. In H.B. Hansen & M. Twaddle (Eds.), *Uganda Now* (pp. 83-94). London: James Currey Ltd.

Oliver, D. (1981). *Community Advocacy And Responsibility In The Modern System; Redefining The Role Of The Teacher.* [Occasional Paper No. 17], Department of Secondary Education, University of Alberta, Edmonton, Alberta.

Oliver and Boyd. (1986). Teaching For Human Rights in Geography. In J. Fein & R. Berger (Eds.), *Teaching Geography For A Better World.*

Olupot, E. (1995). *Intellectual Dependency: Agricultural Program.* Ph.D. Thesis, University of Alberta, Edmonton, Alberta.

Omo-Fadaka, J. (1991). African Development Revisited. In M. Suliman (Ed.), *Alternative Development Strategies for Africa* (pp. 24-34). London: Institute for African Alternatives.

Overholser, J. (1992). Socrates In The Classroom. *The Social Studies,* 77-82.

Pannels, J.R. (1989). Notes On The Role of Functional Language In Contemporary Culture And Education. *Interchange* 20(3), 1-16.

Parpart, J.L. and Staudt, K.A. (1988). *Women And The State In Africa.* London: Lynne Rienner Publishers.

Pattison, D.W. (1964). The Four Traditions Of Geography. *Geography,* 211-216.

Peet, R. (1985). The Geography Of Human Liberation. *Antipode* 17(2&3), 98-104.

Peet, R. and Thrift, N. (1989). *New Models in Geography. Volume One.* London: UNWIN Hyman.

Peshkin, A. and Glesne, C. (1992). *Becoming A Qualitative Researcher: An Introduction*. New York: Longman.

Pickles, J. (1986). Geographic Theory And Educating For Democracy. *Antipode* 18(3), 136-154.

Pietila, H. and Vickers, J. (1994). *Making Women Matter; The Role Of The United Nations*. London: Zed Books Ltd.

Pike, G., Selby, D., and Greig, S. (1987). *Earthrights*. London: Kogan Page.

Pinchenel, P. (1982). Environmental Analysis. In N.J. Graves (Ed.), *UNESCO Source Book For Geography Education* (pp. 1-14). Paris: Longman.

Pope, A. (1989). Assessment: Making The Right Choices. *Geographical Education* 6(1), 10-11.

Popkewitz, T. (Ed.). (1987). *Critical Studies in Teacher Education*. London: Falmer Press.

Population Council, The. (1987). *Better Health For Women And Children Through Family Planning*. [Report of International Conference]. Nairobi, Kenya.

Potter, B.R. and Unwin, T. (Eds.). (1989). *The Geography of Urban-Rural Interaction in Developing Countries*. London: Routledge.

Price, B. (1989). Assessment: It Can Make A World Of Difference. *Geographical Education* 6(1), 12-16.

Reardon, B. (1990). Feminist Concepts of Peace and Security. In P. Smoker, R. Davis & B. Munske (Eds.), *A Reader In Peace Studies* (pp. 136-143). London: Pergamon Press.

________. (1993). *Feminist Visions of Global Security*. Albany: State University of New York Press.

________. (1993). *Women and Peace*. New York: State University of New York Press.

________. (1988). *Educating For Global Responsibility*. New York: Teachers College Press.

________. (1988). The Fundamental Purposes of a Pedagogy for Peace. In *Comprehensive Peace Education* (pp. 54-73). New York: Teacher's College Press.

Redclift, M. (1964). *Development and the Environmental Crisis. Red or Green Alternatives*. London: Methuen Ltd.

________. (1987). *Sustainable Development. Exploring The Contradictions*. London: Methuen Ltd.

________. (1991). The Multiple Dimensions of Sustainable Development. *Geography*, 36-42.

Roberts, G. (Ed.). (1990). *Population Policy. Contemporary Issues*. New York: Draeger Publishers.

Robertson, C., and Berger, I. (1986). *Women and Class in Africa*. London: Africana Publishing House.

Rogers, B. (1984). *The Domestication of Women* London: Tavistock Publications.

Roth, R.A. (1989). Preparing The Reflective Practitioner: Transforming The Apprentice Through The Dialectic. *Teacher Education* XXXX(2), 31-35.

Rothe, J.P. (1979). *The Clinical Supervisor As Stranger. A Critical Look At Clinical Supervision*. [Occasional Paper No. 14], Department of Secondary Education, University of Alberta, Edmonton, Alberta.

Ross, D.D. (1989). First Steps In Developing A Reflective Approach. *Teacher Education* XXXX(2), 22-30.

Samoff, J. (1992). *Review of African Political Economy* (53), 60-87.

Scarfe, N.V. (1978). International Understanding. *Geography* 3, 85-87.

Schon, D.A. (1983). *The Reflective Practitioner: How Professionals Think In Action*. New York, N.Y.: Appleton Basic Books.

_______. (1987). *Educating The Reflective Practitioner*. San Francisco: Jossey-Bass.

Schuster, M. and Dyne, S.V. (1984). Placing Women in the Liberal Arts; Stages of Curriculum Transformation. *Harvard Educational Review* 54(4), 413-428.

_______. (1986). Socialism, Democracy And The Territorial Imperative. Elements For A Comparison Of The Cuban And Nicaraguan Experience. *Antipode* 18(2), 155-185.

Scratz, M. (1993). Through The Looking Glass: The Use of Associate Methods To Enhance Teacher Thinking. In J. Elliot (Ed.), *Reconstructing Teacher Education*. London: Falmer Press.

Sekamwa, J.C. and Lugumba, S.M.E. (1973). *Educational Development And Administration in Uganda 1900-1970. Selected Topics*. Kampala: Longman Uganda Ltd.

Selby, D. (1987). *Human Rights*. Cambridge: Cambridge University Press.

Shaeffer, S. (1990). Participatory Approaches to Teacher Training. In V.D. Rust & P. Dalin (Eds.), *Teachers And Teaching In The Developing World* (pp. 95-114). New York: Garland Ltd.

Sharp, R. (1984). Varieties of Peace Education. In R. Sharp (Ed.), *Apocalypse Now*. Leichardt: Pluto.

Shiva, V. (1987). People's Ecology; The Chipko Movement. In S.H. Mendlovitz & R.B.J. Walker (Eds.), *Towards A Just World Peace* (pp. 253-270). Toronto: Butterworth.

Shor, I. (1987). *Critical Teaching and Everyday Life*. Chicago: The University Of Chicago Press.

________. (1986). Equality Is Excellence; Transforming Teacher Education And The Learning Process. *Harvard Educational Review* 56(4), 406-425.

Shor, I., and Freire, P. (1987). *A Pedagogy For Liberation*. New York: Begin and Garvey Publishers Inc.

Shortle, D. (1971). Environmental Quality And Geographical Education. Charting A Course For The 1990s. *Geographical Education*.

Simmance, A.J.F. (1987). The Impact of Large-Scale Refugee Movements And The Role of UNHCR. In J.R. Rogge (Ed.), *Refugees*. New Jersey: Rowman and Littlefield Publishers.

Singh, M. (1990). Mapping Possibilities For A Critical Geography. *Geographical Education*.

Slater, D. (1977). The Poverty of Modern Geography Enquiry. In R. Peet (Ed.), *Radical Geography* (pp. 40-58). Chicago: Maarouta Press.

________. (1989). *Language and Learning in the Teaching of Geography*. New York: Routledge.

Slater, F. (1994). Education Through Geography; Knowledge, Understanding, Values And Culture. *Geography* 79, Part 2.

________. (1974). Social Relevance. Relevance For Whom Or When. *Geographical Education* 2, 173-184.

Slater, J. (1990). Chapter 1. In Bourdillon (Ed.), *History and Social Studies: Methodologies in Textbook Analysis*. Amsterdam/Lisse: Swet and Zeitlinger.

Smith, D.L. (1978). Values And The Teaching Of Geography. *Geographical Education* 3.

Smith, D.M. (1977). *Human Geography. A Welfare Approach*. New York: St. Martin's Press.

Smith, T. (1985). *Moral Rights and Political Freedom*. Boston: Rowman and Littlefield Publishers Inc.

Southall, A. (1988). The Recent Political Economy of Uganda. In H.B. Hansen and M. Twaddle (Eds.), *Uganda Now* (pp. 54-69). London: James Currey Ltd.

Spradley, J.P. (1980). *Participant Observation*. Toronto: Holt, Rinehart and Winston.

________. (1979). *The Ethnographic Interview*. Toronto: Holt, Rinehart and Winston.

Stabler. (1979). Kenya And Tanzania; Strategies And Realities In Education And Development. *African Affairs* 78(310).

Steinbrink, J.E. (1983). Global Education Assumptions. *Journal of Geography.*

________. (1983). Listening Techniques For Global Education. *Journal of Geography.*

Strauss, A. and Corbin, J. *Basics of Qualitative Research.* London: Sage Publications.

Taylor, D.R.F. (1992). Development From Within and Survival in Rural Africa. A Synthesis of Theory and Practice. In D.R.F. Taylor & F. MacKenzie (Eds.), *Development From Within* (pp. 214-258). London: Routledge.

Teigas, D. (1995). *Knowledge And Hermeneutic Understanding. A Study of the Harbermas-Gadenner Debate.* Buckwell University Press.

Tesi, M.K. (1990). Economic Dependence And Political Compliance In Third/First World Relations; Bringing Theory To Closer Proximity With Reality. *Review of African Political Economy* 2, 6-40.

The New Internationalist.. (1975). The New Economic Order.

The New Internationalist. (1978). Answering Back The Questions People Ask On Poverty.

The New Internationalist. (1981). The Brandit Report And After.

Thomas, D. and Skeat, H. (1990). Gender In Third World Development Studies. *Australian Geographical Studies* 28(1), 5-15.

Tickle, L. (1993). Capital "T" Teaching. In J. Elliott (Ed.), *Reconstructing Teacher Education.* London: Falmer Press.

Tidswell, V. (1990). Capes, Concepts And Conscience: Continuity In The Curriculum. *Geography*, 302-324.

Timberlake, L. (1985). *Africa In Crisis.* London: Earthscan.

Toh, S.H. (1986). Third World Studies. Conscientization in the Geography Classroom. In J. Fein & R. Berger (Eds.), *Teaching Geography For A Better World* (pp. 153-185). Sidney: The Jacaranda Press.

________. (1987). Education For Participation: Third World Perspectives. *WCCI Forum* 1(1), 20-43.

________. (1988). Flowing Water Over Stones: Themes For Peaceful Pedagogies. In Occasional Paper 88.1 - *Perspectives On Peace And Security*, 33-47. Department of Educational Foundations, University of Alberta, Edmonton, Alberta.

________. (1987). Survival And Solidarity. *Social Alternatives* 6(2), 25-45.

________. (1993). Bringing The World Into The Classroom: Global Literacy And A Question Of Paradigms. In E. Choldin (Ed.), *Global Literacy* 1(1), 9-17.

________. (1977). Canada's Gain From The Third World Brain Drain. 1962-74. *Studies In Comparative International Development* 12(3).

Toh, S.H. and Cawagas, V. (1987). *Peace Education. A Framework for the Philippines.* Quezon City: Phoenix.

________. (1974). *Uganda Canada Teacher Training Project.* Masters of Education Thesis, University of Alberta, Edmonton, Alberta.

Topouzis, D. (1993). Feminization of Poverty. In R.M. Jackson (Ed.), *A Global Issue 1993/94* (pp. 250-254). Guilford: Dushinkin Publishing Company.

Trainer, E.F. (1985). *Abandon Affluence.* London: Zed Publishers.

Trainer, T. (1990). Rethinking Sustainable Development. *Geography Education.*

Tripp, A.M. (1994). Gender, Political Participation And The Transformation Of Associational Life in Uganda And Tanzania. *African Studies Review* 37(1), 107-131.

Trudgill, S. (1991). Environmental Education: Priorities And Participation. *Geography*, 43-49.

Tye, B.B. and Tye, K.A. (1992). *Global Education: A Study of School Change.* Albany: State University of New York Press.

Uchendu. (1979). *Education and Politics in Tropical Africa.* New York: Concitt Magazine Ltd. Publishers.

Uganda Government. (1995). *The Constitution of the Republic of Uganda.*

Uganda Government, Publications Department of Lands and Survey. (1969). *Uganda Atlas.*

Uganda Government, Ministry of Education and Sports. (1989). *Education For National Integration and Development.* [Report of Education Policy Review Commission]. Kampala, Uganda.

Uganda Government, Ministry of Education and Sports. (1992). *The Government White Paper.* Kampala, Uganda.

Uganda National Examinations Board. (1995). Uganda Certificate of Education Report on *Work of Candidates.*

UNDP. (1989). *Education And Training In The 1990s.* New York.

UNESCO. (1984). Wastage In Primary Education. *Prospects*, 14(3).

UNICEF. (1989). *Children And Women In Uganda. A Situational Analysis.* Kampala, Uganda.

Van de Berghe, P.L. (1978). Education, Class and Ethnicity in Southern Peru: Revolutionary Colonialism. In P.G. Altbach & G.P. Kelly (Eds.), *Education And Colonialism*. New York: Longman

Waal. (1993). *IDS Bulletin* 24(1), 33-40.

Walden, B. (1989). Confronting The Brave New World Economic Order: Towards A Southern Agenda. *Alternatives*, 135-167.

Walford, R. (Ed.). (1973). *New Directions in Geography Teaching*. London: Longman.

________. (1981). Language, Ideologies and Geography Teaching. In R. Walford (Ed.), *Signposts For Geography Teaching* (pp. 215-222). Essex: Longman.

Walmsley, D.J. (1984). Environment And Behaviour: The Local Environment. *Geographical Education* 4(3), 158-169.

Warf, P. (1986). Ideology, Everyday Life And Emancipatory Phenomenology. *Antipode* 18(3), 268-283.

Waring, M. (1988). *If Women Counted*. New York: Harper and Row Publishers.

Watson, C. (1994). Uganda. *Africa Report*, 24-26.

Watts, M. (1991). Entitlements Or Empowerment? Famine And Starvation In Africa. *Review of African Political Economy* (51), 9-26.

Weissman, S. (Ed.). (1974). *The Trojan Horse*. San Francisco: Ramparts Press.

Were Gsad Wilson, D.A. (1968). *East Africa Through A Thousand Years*. New York: Africana Publishing Corporation.

Westcott, A. (1979). Women In Social Sciences. *Harvard Educational Review* 49(4), 422-430.

Wickrama, K.A.S. and Keith, P.M. (1994). Savings And Credit: Women Informal Groups As Models For Change In Developing Countries. *Journal of Developing Areas* 28, 365-378.

Weiringa, S. (1994). Women's Interests And Empowerment: Gender Planning Reconsidered. *Development And Change* 25, 829-848.

Women Study Groups of IBG. (1993). *Geography and Gender*. London: Hutchison and Co. Publishers Ltd.

Woodward, P. (1978). Ambiguous Amin. *African Affairs* 77(307), 153-165.

World Bank. (1993). *Uganda; Growing Out of Poverty*. Washington, D.C.

World Bank. (1993). *Uganda Social Sectors*.

World Conference on Education For All. (1990). *World Declaration on Education For All And Framework For Action To Meet Basic Learning Needs*. New York: UNICEF.

Yeakey, C.C. Schooling: A Political Analysis of the Distribution of Power And Privilege. *Oxford Review of Education*, 173-191.

Yonemura, M. (1986). Reflections On Teacher Empowerment And Teacher Education. *Harvard Educational Review* 56(4), 473-480.

Young, R. (1991). Privatization in Africa. *ROAPE* (51), 50-62.

Zachariah, M. (1985). Lumps of Clay And Growing Plants. Dominant Metaphors of the Role of Education in the Third World. *Comparative Education Review*, 29(1), 1-21.

________. (1989). Linking Global Education With Multicultural Education. *Alberta Teacher's Association Magazine*, 48-51.

________. (1990). For A Committed Internationalism In Comparative Study of Cultures. *Compare* 20(1), 85-87.

________. (1990). Attitudes And Development Studies. *Participatory Development Review* 1(2), 3-4.

________. (1979). Can The Rich And The Poor Nations Cooperate To Internationalize The Curriculum? A Pessimistic View. *Compare* 9(1), 65-69.

Zeichner, K. (1983). Alternative Paradigms Of Teacher Education. *Journal of Teacher Education* 33(3/3), 3-9.

________. (1987). Teaching Student Teachers To Reflect. *Journal of Teacher Education*, 23-48.

Zeichner, K. and Liston, P. (1987). Teaching Student Teachers To Reflect. *Harvard Educational Review* 57(1) 23-48.

________. (1990). Reflective Teaching And Action Research In Preservice Teacher Education. *Journal of Education For Teachers* 16(3), 235-255.

________. (1987). Critical Pedagogy And Teacher Education. *Journal of Education* 69(3), 117-137.

_______. (1987). Reflective Teacher Education And Moral Deliberation. *Journal of Teacher Education* 2(8).

Appendix 1

Official Letters for Research Project

University of Alberta
Edmonton

Centre for International Education and Development
Department of Educational Policy Studies
Educational Administration, Educational Foundations, Adult and Higher Education
Faculty of Education

Canada T6G 2G5

7-104 Education Building North,
Telephone (403) 492-7229
Fax (403) 492-0762

May 25, 1995

Director
Uganda National Research Council
Kampala, Uganda

Dear Sir/Madam:

On behalf of the Centre for International Education & Development, I am writing in support of the application of Mrs. Alice Kagoda, Lecturer, School of Education, University of Makerere to conduct educational research in Uganda. Mrs. Kagoda is a participant of the CIDA-CIED institutional linkage project between the University of Alberta and Makerere University. She is presently enrolled in the PhD program in International & Intercultural Education in the Department of Educational Policy Studies, University of Alberta. I am serving as her thesis supervisor. Mrs. Kagoda is specially interested in the integration of global education into the Geography curriculum.

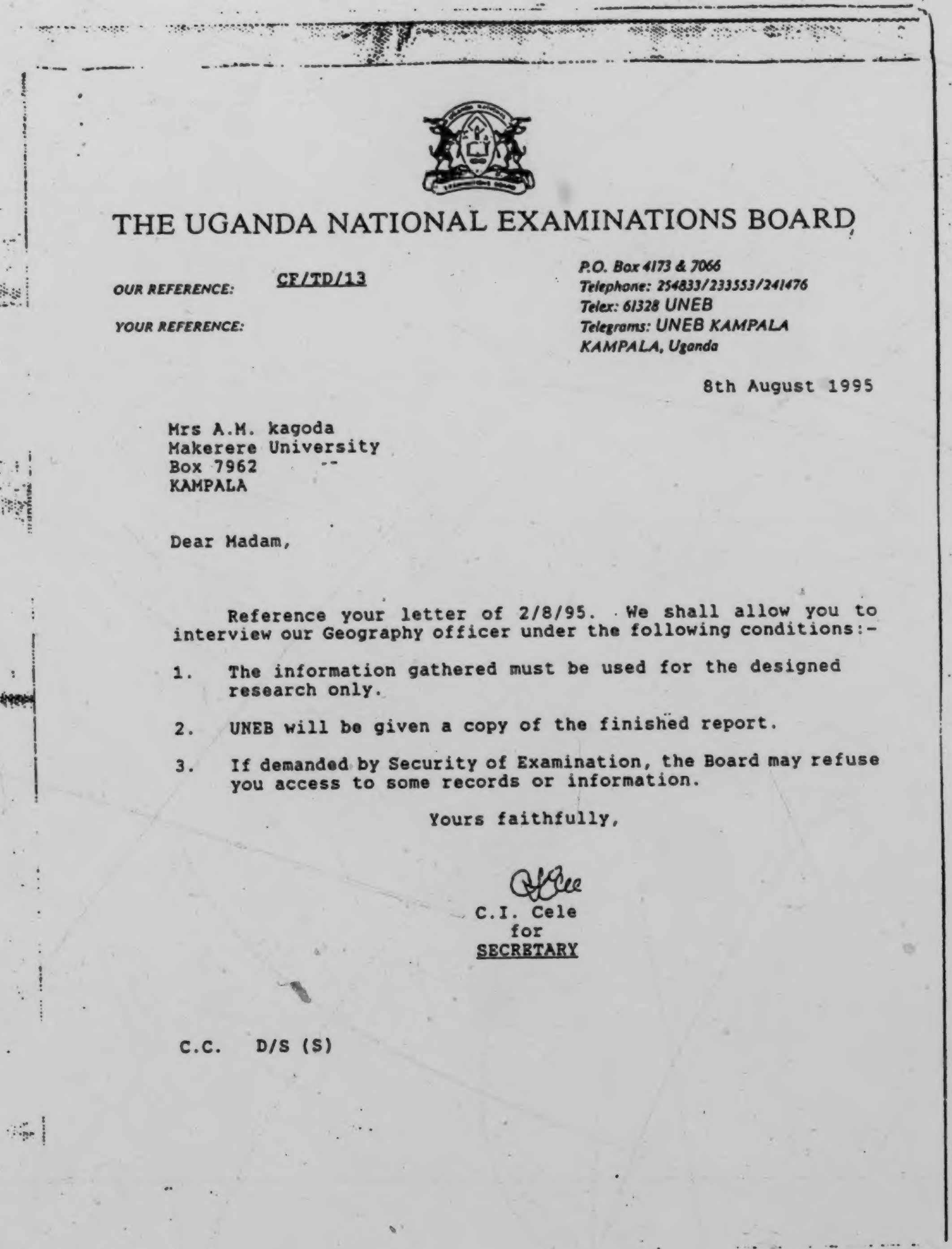
During her fieldwork in Uganda over the period June-October, 1995, Mrs. Kagoda will be studying the Geography Education program in two selected National Teachers Colleges. Her research will involve collecting documentary material, interviewing lecturers, student teachers, policy-makers and administrators on issues related to the teaching and learning of Geography in Ugandan teachers colleges and observing student teachers during their practicum experience. I am confident that Mrs. Kagoda's proposed research will yield useful and important recommendations for improving Geography Education programs in national teachers colleges and in turn, Ugandan schools.

I would be grateful if you would kindly approve and facilitate Mrs. Kagoda's application to conduct the above described research study in Uganda.

Yours sincerely

Dr. S.H. Toh
Director, CIED
and Co-Director, Uganda Project

cc. RC IV Chairperson-Osukuro Subcounty
RC III Chairperson-Osukuro Parish
RC II Chairperson-Osukuro Parish
RC I Chairperson-Osukuro Parish
RC Women's Representative-Toroto District
Heads of Departments, Makerere University
Dr. W. Samiroden, Co-Director, Uganda Project
Dr. M. Odada, Acting Director, Uganda Project
Dr. C. F. Odaet, Director, Uganda Project (on leave)



THE UGANDA NATIONAL EXAMINATIONS BOARD

P.O. Box 4173 & 7066
Telephone: 254833/233553/241476
Telex: 61328 UNEB
Telegrams: UNEB KAMPALA
KAMPALA, Uganda

OUR REFERENCE: CF/TD/13

YOUR REFERENCE:

8th August 1995

Mrs A.M. kagoda
Makerere University
Box 7962
KAMPALA

Dear Madam,

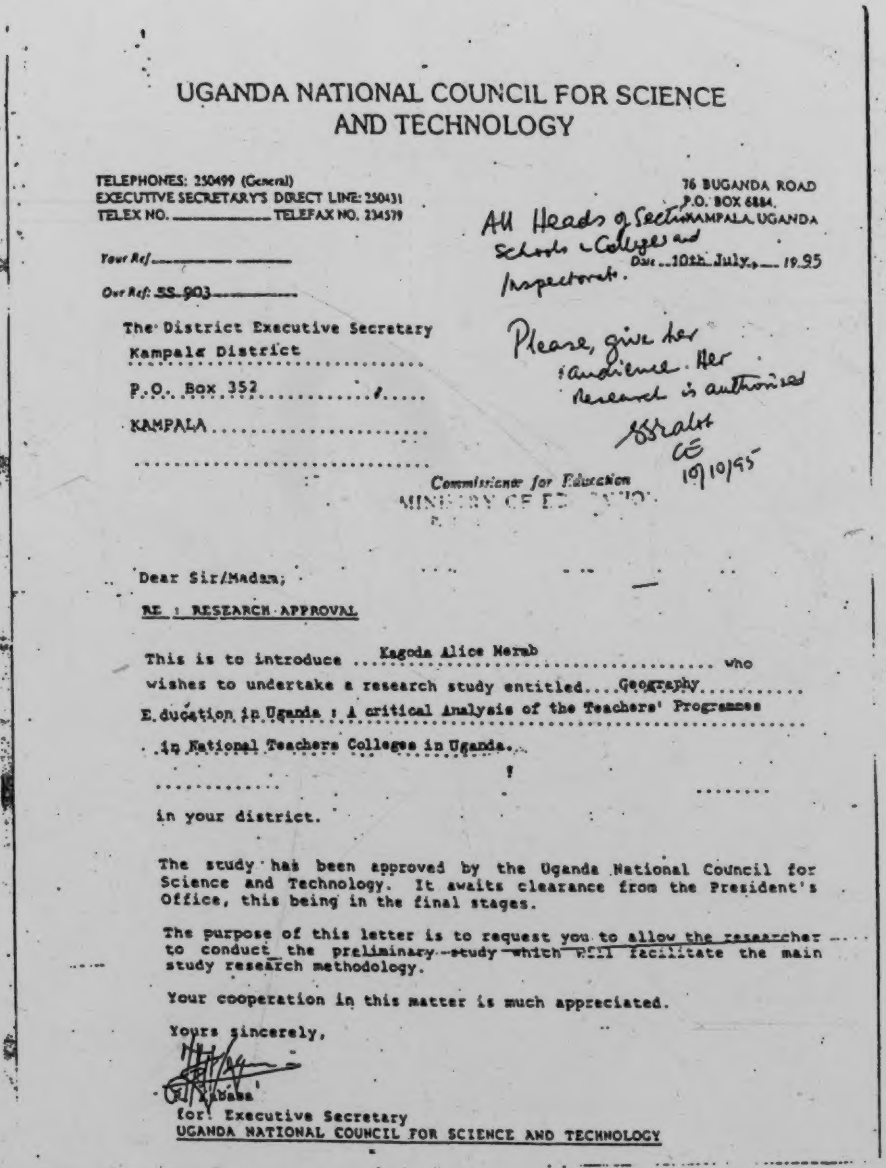
Reference your letter of 2/8/95. We shall allow you to interview our Geography officer under the following conditions:-

1. The information gathered must be used for the designed research only.
2. UNEB will be given a copy of the finished report.
3. If demanded by Security of Examination, the Board may refuse you access to some records or information.

Yours faithfully,

C.I. Cele
for
SECRETARY

C.C. D/S (S)



UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

TELEPHONES: 250499 (General)
EXECUTIVE SECRETARY'S DIRECT LINE: 250431
TELEX NO. ____________ TELEFAX NO. 234579

76 BUGANDA ROAD
P.O. BOX 6884,
KAMPALA, UGANDA

All Heads of Sections
Schools & Colleges and
Inspectorate.

Date 10th July, 1995

Your Ref ____________

Our Ref: SS 903

The District Executive Secretary
Kampala District
P.O. Box 352
KAMPALA

Please, give her audience. Her research is authorised
CE
10/10/95

Commissioner for Education
MINISTRY OF EDUCATION

Dear Sir/Madam;

RE : RESEARCH APPROVAL

This is to introduce Kagoda Alice Merab who wishes to undertake a research study entitled Geography Education in Uganda : A critical Analysis of the Teachers' Programmes in National Teachers Colleges in Uganda. in your district.

The study has been approved by the Uganda National Council for Science and Technology. It awaits clearance from the President's Office, this being in the final stages.

The purpose of this letter is to request you to allow the researcher to conduct the preliminary study which will facilitate the main study research methodology.

Your cooperation in this matter is much appreciated.

Yours sincerely,

[illegible]
for: Executive Secretary
UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

MAKERERE UNIVERSITY
P. O. Box 7062 Kampala Uganda
Phone:
Cables: "MAKUNIKA"

DEPARTMENT OF SOCIAL SCIENCE AND ARTS EDUCATION
SCHOOL OF EDUCATION

Your Ref: ....

Our Ref: ....

August 28, 1995

Dear Miss/Mr/Mrs/Rev...

GEOGRAPHY SEMINAR, KALIRO NATIONAL TEACHERS COLLEGE
21 - 22 SEPTEMBER, 1995

A two-day residential seminar for teachers who are participating in the on-going research will be held at Kaliro National Teachers College from 21 - 22 September, 1995.

The purpose of the seminar will be to discuss ideas and strategies for integrating Geography education with global/peace perspectives. This is therefore, to invite you to come and participate in the seminar. This invitation is being extended to you in your personal capacity as someone who is participating in the on-going research.

You are expected to arrive at the college of WEDNESDAY 20 SEPTEMBER, 1995 in time for supper which will be served at 6.00 p.m. Registration of seminar participants will start at 5.00 p.m. The seminar will close on FRIDAY 22 SEPTEMBER, 1995 at 1.00 p.m. after lunch. The following will be provided to those who will participate in the seminar.

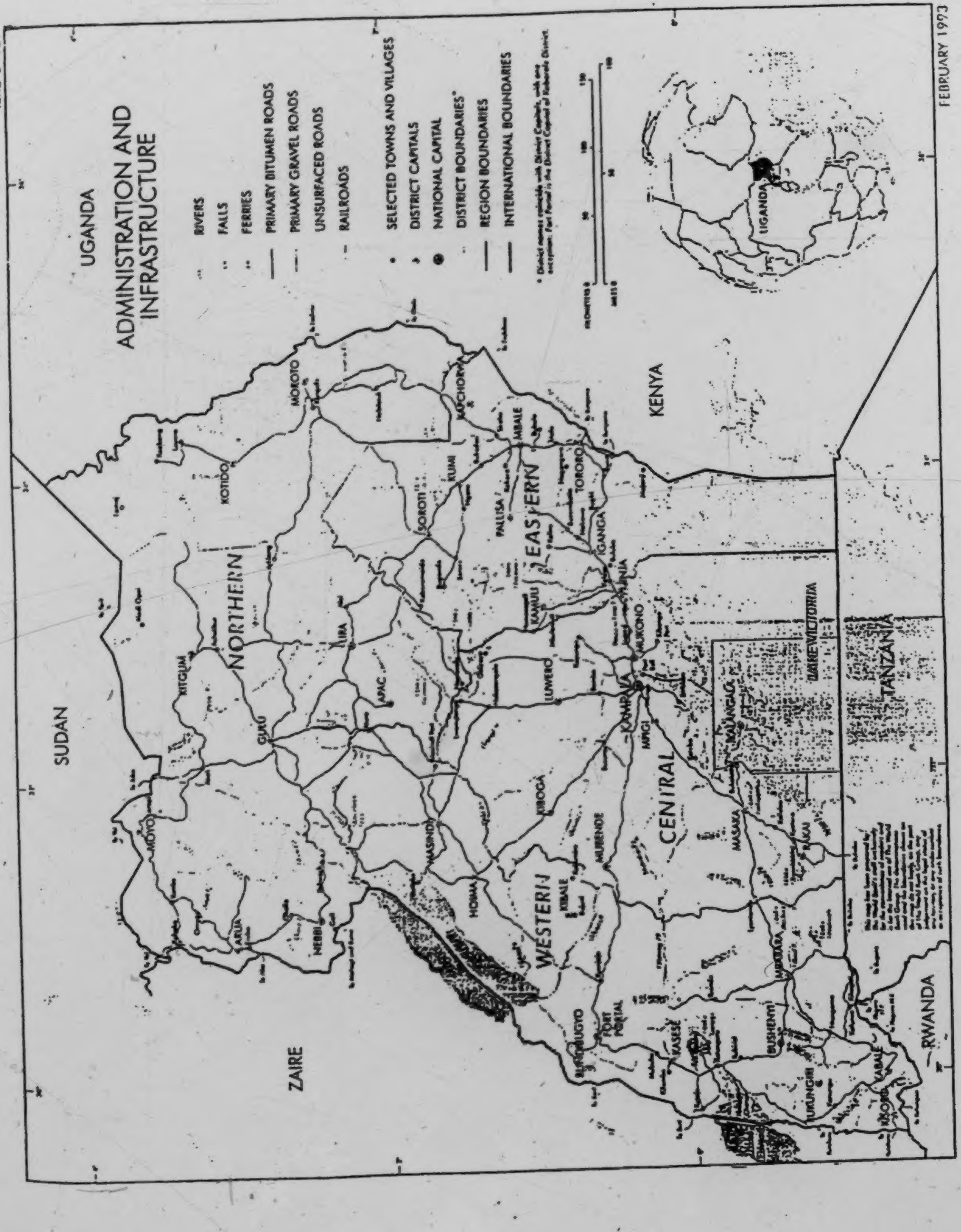
1. Accommodation and meals.
2. Refund of return journey fare by public means.
3. Stationery.

I look forward to your active participation in the seminar.

Yours faithfully

A.M.T. Kagoda (Mrs)

Appendix 2: Map of Uganda


UGANDA
ADMINISTRATION AND INFRASTRUCTURE
RIVERS
FALLS
FERRIES
PRIMARY BITUMEN ROADS
PRIMARY GRAVEL ROADS
UNSURFACED ROADS
RAILROADS
SELECTED TOWNS AND VILLAGES
DISTRICT CAPITALS
NATIONAL CAPITAL
DISTRICT BOUNDARIES*
REGION BOUNDARIES
INTERNATIONAL BOUNDARIES
SUDAN
ZAIRE
KENYA
TANZANIA
RWANDA
NORTHERN
EASTERN
CENTRAL
WESTERN
LAKE VICTORIA
KAMPALA
GULU
KITGUM
MOYO
ARUA
NEBBI
APAC
LIRA
KOTIDO
MOROTO
SOROTI
KUMI
MBALE
TORORO
PALLISA
IGANGA
JINJA
KAMULI
MUKONO
LUWERO
MPIGI
MASINDI
HOIMA
KIBOGA
MUBENDE
MASAKA
RAKAI
KALANGALA
KABALE
KISORO
RUKUNGIRI
BUSHENYI
MBARARA
KASESE
BUNDIBUGYO
FORT PORTAL
KABAROLE
KIBALE
NAPAK
UGANDA
FEBRUARY 1993

Appendix 3: Photographs of Research Sites in Uganda

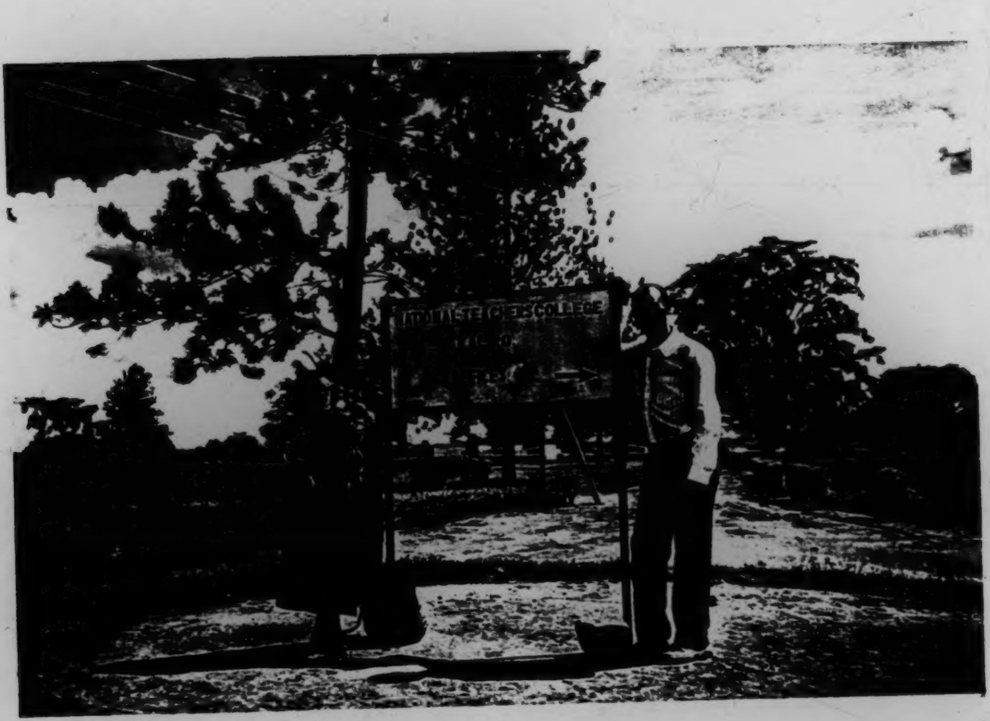


Figure 1: N.T.C. Kaliro Campus

ERAL OFFICE

Figure 2: N.T.C. Kakoba Campus

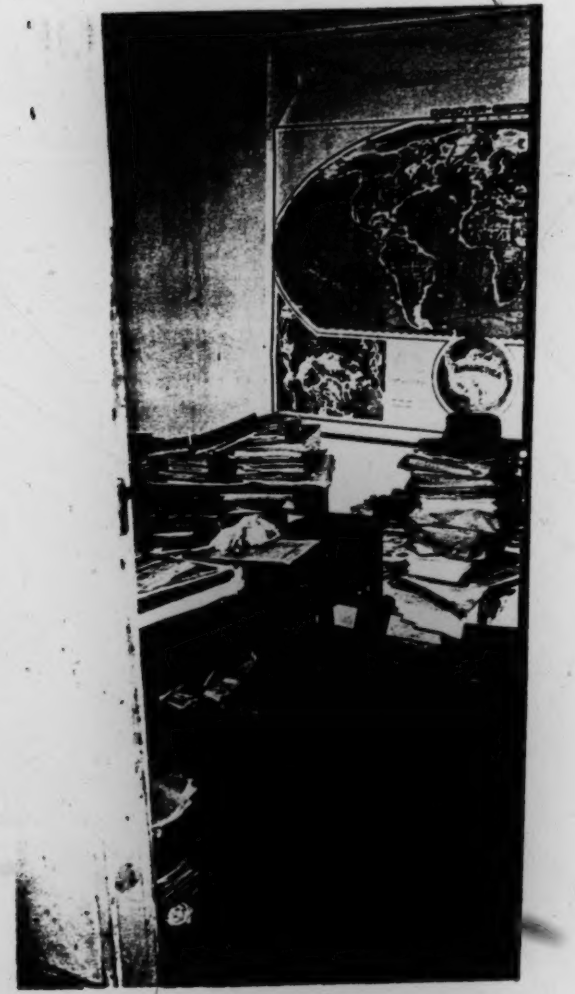


Figure 3: N.T.C. Kaliro
Geography Departmental Office

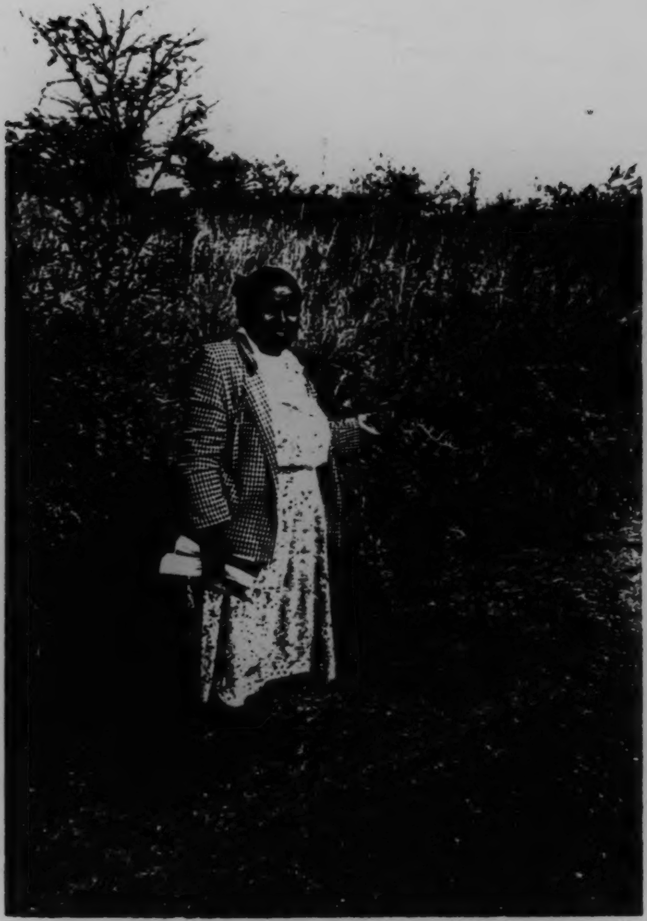


Figure 4: Typical vegetation: Mbarara District outside Mburo Game Reserve

Figure 5: Firewood: Main source of cooking fuel; N.T.C. Kaliro

Figure 6: A rural Secondary School

Appendix 4: Survey Questionnaire on Issues of Development

QUESTIONNAIRE

Dear student teacher in Geography Education: I am presently undertaking an educational research study as part of the Ph. D. program at the University of Alberta, Canada. I am very interested in your ideas on various issues related to Geography education in Uganda school.s Geography, as you are aware, is a study of the physical environment, the people, the interaction between peoples and their environments, as well as the results of such interactions. In the geography curriculum, we therefore deal with many physical, social, economic, cultural and political issues.

This questionnaire focuses on a number of these issues at local, community, national, international and global levels. You are invited to give your opinion about the following issues. Please do not regard this as a test. Your honest opinions and your participation in this study will be greatly appreciated.

Instructions: Please circle what best describes or approximates your opinion about each of the following statements.

KEY SA: Strongly agree; A=Agree; D=Disagree; SD=Strongly disagree.

1. Traditional or indigenous culutural beliefs and practices can contribute to environmental conservation or protection.

2. Land redistribution is very important in resolving problems of poverty.

3. Women contribute little to the economic development of developing countries.

4. Street children are the result of overpopulation in the slums.

5. Environmental destruction is mainly caused by the ignorance and bad practices of poor peoples.

6. The present international trading system is very helpful to the development of poor countries like Uganda.

7. All fertile land in Uganda should be used to grow cash crops to earn foreign exchange.

8. Different cultural groups in any society will always conflict with each other

9. Famine and hunger in most developing countries is the result of failure of rain.
10. Military spending should be increased to ensure national security.

11. The International Monetary Fund (IMF) is beneficial to developing countries.

12. It is essential to resolve conflicts through nonviolent strategies.

13. Overpopulation in developing countries is the main cause of poverty and hunger.

14. The goal of Uganda's national development policies is to attain the same living standards and lifestyle of North Americans.

15. Nuclear weapons are not manufactured in Uganda and therefore we should not worry about the nuclear arms race.

16. Cultural discrimination is not a problem in Uganda.

17. The record of industrialized nations is promoting human rights is the best in the world.

18 The World Bank has contributed positively to the development of poor countries.

19. The developing countries are primarily responsible for environmental deterioration in the world.

20. Women and men are treated equitably in Uganda.

21. It is essential to use chemical fertilizers and pesticides to increase agricultural production.

22. Urbanization in Uganda should follow the model of urban growth and development in the advance industrialized societies.

23. Uganda should not encourage the use of the automobile (car) as a means of transportation.

24. In order to promote national development, Ugandan citizens must develop very competitive and individualistic valus and attitudes.

25. Uganda should immitate the Tennesee Valley Authority multipurpose scheme in order to develop poor areas.

26. Understanding each others religion will promote unity in Uganda.

27. Uganda should allow foregn corporations to invest without any governmental intervention so that they can help to promote economic development.

28. Building a second dam on the River Nile will boost the economy of the country.,

29. Rural people in Uganda should be encouraged to plant fast-growing imported trees to replace the slow growing indigenous or native trees.

30. The issue of women's rights is irrelevant to Ugandan society since it will lead to the loss of traditional culture.

Appendix 5

NATIONAL TEACHERS COLLEGES GEOGRAPHY SYLLABUS, 1993

The National Teachers Geography Panel have discussed and hereby recommend that the Geography Syllabus be restructured so as to fit the present circumstances. The new structure involves Part I Paper II being dropped I.e. South America, Australia and Monsoon Asia.

The new structure for Regional Geography will now be as follows:

- Part One Paper II - East Africa, North America..
- Part Two Paper II - The rest of Africa and Rhinelands.

The new N.T.C. Geography Syllabus hereby code named 1993 will be as outlined.

The rationale for dropping South America, Australia and Monsoon:

1. This part of the N.T.C. Geography Syllabus was intended to equip and prepare N.T.C. students to teach the Ministry of Education and Sports Syllabuses for S.1 and S.2 Unfortunately the syllabuses forS.1 and S.2 is no longer being taught by secondary schools. The Geography panel members therefore feel that preparing our students to teach South America, Australia and Monsoon Asia is like training a soldier on a gun (a weapon) he would never use. since secondary schools teach Geography syllabus 273 from S.1 to S.IV, the Geography panel members feel that the N.T.C. regional geography should emphasize the preparation of students so that they effectively teach syllabus 273.

2. The regional Geography syllabus is too wide, namely South America, Australia, and Monsoon Asia for part I and East Africa, Africa, North America and Rhinelands for part II. The N.T.C. academic terms are short. No one can claim to cover all those areas effectively. The pane members feel that the little time the colleges have schould be spent covering relevant areas.

3. There are very few secondary schools which are adequately stocked with resource materials for syllabus 273. For the vast majority of secondary schools where most of our students go to, depend on the resourcefulness of the teachers. It is imperative therefore that we fully equip our students so that they use their notes as resource materials for the classes the (students) teach.

For these reasons the panel members recommend that this new syllabus becomes effective with first years 1993/94 academic year.

NATIONAL TEACHERS' GEOGRAPHY PANEL

GEOGRAPHY SYLLABUS, 1993

OBJECTIVES.

1. To help the students of this College to teach Geography so that it is a meaningful, relevant and interesting part of the education of citizens of Uganda.

The Geography teaching should:

a) be based firmly on the understanding of the immediate environment to the advatage of the people living there;

b) emphasize the actual and potential possibilities of developing that environment to the advantage of the people living there;

c) give an understanding of the ways of life and the present and possible future economic development of other areas of Uganda and East Africa;

d) stress the interdependence of people in Uganda and the importance of co-operation and self-help in the development of Uganda:

e) Study areas of the world outside East Africa with an emphasis on the ways of life of the people in these areas and take account of all the factors influencing the way people live;

f) by explaining some of the reasons, for the differences in people's ways of life in an attempt to contribute to telerance and understanding of other people;

g) select areas to be studied by considering their relevance to the likes of the pupils and the development of these other areas which might be relevant to the development of East Africa;

h) be based firmly on reality through field work and through maps and photographs and other secondary sources;

i) emphasize the learning and practice of geographical skills. than acquisition of factual knowledcge;

j) use of varied methods and choice of topics so as to provide pupils with pleasure, enjoyment and interest and to build on their own natural curiosity;

k) to promote the intellectual growth of pupils;

1. CONTINOUS ASSESSMENT

a) Part I

An assessment of geographical skills; map work, photography interpretation, cartographic methods, use of atlac, statistical diagrams, etc.

b) Part 2

Assessment of a field work project, either based on the major field work course done during one-weeks trip to another port of Uganda, or East Africa, alternative will be subject to the approval of the geography tutors.

2) EXAMINATIONS

PART ONE

Part I:
- 3 questions for 3 hours.
- 2 compulsory questions from map work and photographic interpretation
- 1 question out of 3 others on Geography methods, dield work and statistics.

Paper II:
- 3 questions for 3 hours
- 2 on East Africa
- 1 on North America

PART TWO

Paper I: - 3 questions on Geography methods for 3 hors.

a)
- 1 on philosophy) 60%
- 2 on teaching method)

b)
- Field work project) 40%

Paper II: - 3 questions on Geography methods for 3 hours.

a)
- 3 questions for 3 hours
- 2 on Africa
- 1 on Rhinelands

3. CONTENT OF THE COURSE

ACADEMIC Part one

A. INTRODUCTION

1. The various aspects of geography as a subject.

2. How to find information in Geography, sources of material books, magazines, newspapers, movement publications, statistical publications, maps, atlas, pictures etc.

3. The use of the Library

4. The importace of wide reading in geography.

5. The importance of starting to collect geographical material, books articles, newspaper-cuttings, photographs etc.

6. How to study during the college course-advice and practice on note making from lectures books etc. Advice on how to read, find information, writing essays etc.

B. Elementary Geographical Skills-Map work, Photographs and Field work Techniques.

1. The use of photographs in Geography. Differences between photographs and maps. Correlation of maps and photographs. Drawing field sketches from reality. Drawing sketches from photographs.

2. Making simple maps of college and college areas-introduction of ideas of scale, direction, etc. but without very accurate measurement or surveying techniques.

3. Following a route, filling in buildings on an outline map, plotting functions of buildings, use of simple transects, drawing route maps, etc.

4. Mathods of showing relief. Practical introduction to contours outside (walking along contours, sketch maps of contours, etc). use of sand tray, rocks in water, models, etc.

5. Transect across a hill. Drawing and using cross-sections based on local college environment.

6, Use and drawing panoramas (nearby hill to the college).

7. Drawing simple maps of forms. Use of colours and symbols, etc. on maps.

8. Study of a market and portrayal of result in diagramatic form (see "Geography in Education No. 3)

9. Traffic, survey and presentation of results.

10. Either rural land-use survey round the college or urban land-use survey of part, or surbubs of nearby town.

11. Visit to Entebbe to study rock types in the field and in Geological museum and local vicinity.

12. study of soil types from bottom to top of nearby hill and soil profile.

13. Beginning of some regular weather observation and recording.

14. Visit to meteorological department at Entebbe/nearby weather station

15. Different map-drawing techniques and ways of presenting statistics use of dots, circles, flow-lines, colour, symbols, types of graphs etc.

16. Grid references with reference to new maths, etc.

17. Latitude and longitude as Grid lines of the earth.

18. Use of the Atlas and different kinds of maps, in atlases.

19. Drawing sketch maps on black -board. How to enlarge and reduce maps.

20. Simple idea of need for map projections and observations of some differences between them.

C. METHJODS

PART ONE

1. Why we teach geography -a more detailed discussion, formulating aims we can use when planning lessons.

2. Types of lesson-discussion of the various types of lessons and methods of teaching used in the regional studies and demonstration lesson during the year.

3. Making lesson plans in Geography.

4. Planning a scheme of work for a group of lessons or larger unit of several weeks or term.

5. The Ministry of Education 273 syllabus.

6. Revision of methods of introducing map work with special reference to the beginning of S.1.

7. Use of phographs in teaching.

8. Use of sample studies and the topic approach.

9. Note making for pupils and preparation of exercises.

PART TWO

More formal analysis of teaching methods and summary of previous work on methods. In this section students are introduced to philosophy of the subject and methodology.

1. TEACHING PARTICULAR ASPECTS OF GEOGRAPHY.

- Photo interpretation
- Map and photo exercises
- Map work and contours-summary of techniques. Simple elements of weather methods of teaching including practical work.

2. VARIETY OF METHODS IN GEOGRAPHY TEACHING

- Use of films and film strips
- Use of sample studies
- Integration of map and photo work-with other work, sketch maps
- Use of Duplicated Exercises.
- Use of Text Books
- Use of descriptive passages
- Portrayal and use of statistics.

3. TYPES OF GEOGRAPHY TEACHING.

- Historical development of methods
- Aims of Geography
- Regional and systematic approaches "Determinism"
- New trends in Geography teaching.
- Use of sumulating exercises.

4. SYLLABUSES AND SCHEMES OF WORK

- Drawing up syllabuses
- Types of syllabuses
- Breaking down syllabuses and regions into schemes of work
- Use to topic and sample approaches within schemes of work

5. PLANNING LESSONS.

- Preparation of lesson plans
- Aims of lessons
- Variety within lessons
- Teacher and pupil activity within the lesson

6. GENERAL TEACHING TECHNIQUES

- Questioning
- Use of comparisons
- Giving notes
- Types of written exercises
- Marking
- Group work

7. TEST AND EXAMINATIONS

- Types of questions
- Setting examinations
- Marking schemes
- Marking

8. THE S.3-S.4 GEOGRAPHY SYLLABUS

9, MATERIAL AND EQUIPMENT

- Sources of Geographical information and Visual Aids.

Sources of equipment, text books, atlases etc. and critical selection of these

- Geography room

10. OTHER METHODS IN GEOGRAPHY

- Projects
- Quizzes and puzzles
- Radion and T.V.
- Films
- Geographical societies.

11. FIELD WORK.

Planning a field work course and integration with the rest of the syllabus. Detailed planning of a field day, week-end or longer trips.

D. PART ONE: PAPER TWO. REGIONAL.

In studying the two Regions, i.e. developed and developing areas, students should be able to realize the actual and potential opportunities of developing their own environment.

Instructional Approach - Sample and Topical.

General Introduction to all the Regions (Parts I and II)

a) Introduction: location, position, size (extent)

b) Structure and relief: major crustal blocks according to their geological dating, physical features which constitute relef, e.g. basins: plateaus, highlands, mts etc.

c) Drainage systems: density, distribution, advantages and disadvantages.

d) Climate and vegetation: causes and patterns of climate, vegetation types and natural regions.

e) Demographic characteristics e.g. age, birth rate, death rate etc.

f) Human response to environmental stress e.g. Typhoons, Earthquakes, vulcanicity, drought, floods etc.

The Regions.

EAST AFRICA

The study of East Africa will be based on the following themes in which integrated skills of map reading, photographic interpretation and field work will be used.

i) Agriculture: livestock, a rable and agricultural modernization, reaching, irrigation scheme, land consolidation etc.

ii) Resstlement schemes e.g. Mubuku and Mwea-Tebere schemes

iii) Esploitation of natural resources e.g. forestry, fisheries and non renewables like minerals, as a ke to sustain development.

iv) Tourism.

v) Industrial development.

vi) Trade, Transport and Communications

vii) Urbanization, causes and effects.

viii) Foreign Aids and Regional Cooperation.

NORTH AMERICA

The themes will have integrated skills of map reading and photographic interpretation.

i) Fishing, mining, H.E.P., forestry and development of mining industry in British Columbia.

ii) Urbanization
- concept, development and distribution of urban centres.
- the pros and cons of urbanisation using New York or any other urban area.

iii)	Cotton belt	- causes and effects of changing patterns of land use. - rise of manufacturing industry in an agricultural region.
iv)	Canadian praires	- extensive farming and the problem of over- production.
v)	Southern California	- agricultural prosperity in abasically hostile environment - the exploitation of the natural environment (land scape) e.g. film industry.
vi)	Canadian praires	- extensive farming and the problem of over-production.
vii)	St. Lawrence Sea Way	- the way the sea way has developed. - the value of inland water ways.

E. PART TWO: PAPER TWO, REGIONAL, THE REST OF AFRICA

The themes are:-

i) The conservation and management of renewable resources e.g. vegetation, fisheries etc.

ii) Agriculure: change from traditional farming to commercial agriculure e.g.plantation, ranching pastoralism etc.

iii) Utilization of River resources e.g. falls as (i) potential for tourism and H.E.P. (ii) riverine transport.

iv) Transport problems of land locked countries e.g. Zimbabwe, chad etc; transhipment, relief. - solutions to transport problems.

v) Trade Development - problems of relying on sole or few sources of revenue e..g. copper in Zambia, Petroleum in Libya, Continental trade development e.g. (P.T.A. - Preferential Trade Area), ECOWAS (Economic Organizationof west African States) etc. and extra continental e.g. G.A.T.T. (General Agreements on Trade and Tariffs) trading arrangements.

vi) The development of industry: Primary, Tertiary;- Industrial Regions e.g. the Rand, copper belt, Nile Valley in Egypt etc.

vii) Urbanization - problems and development strategies.

THE RHINELANDS

Belgium, Luxermburg, Germany, Switzerland and Holland.

i)	The Rhine as an international route way.	
ii)	Switzerland	- highly developed economy in a land locked country having limited resources.
iii)	Germany	- Industrialization especially the Ruhr region. - Farming in the Rift Valley. - Challenges of Re-unification e.g. unemployment in former German Democratic Republic (G.D.R.)
iv)	Benelux countries	- Rhine Delta and land industry. - International Port: Rotterdam and Europot.
v)	Trade	- Rhine lands as part of E.C.E (European Community global connections e.g. link with A.C.P. (African, Carribean and pacific countries.

Appendix 6

0-LEVEL SYLLABUS 273 GEOGRAPHY

AIMS:

(i) To make the student aware of interested in and care for his immediate environment.

(ii) To help him to acquire the appropriate attitudes and skills with which to interpret and develop that environment including those of recording, analysing and synthesising the observations that have been made.

(iii) To help him to acquire knowledge and understanding of the relevant aspects of the larger environment in which the community and country exist by selecting topics of particular applicacility to his environment.

(iv) To help him to acquire the ability to use geographical knowledge of the larger environment in which the community and country exist by selecting topics of particular applicability to his environment.

(v) To help him to interpret photographs depicting both physical and human feature, and representing or interpreting geographical statistics.

(vi) To help him to understand field-work techniques and to study a local area in the field.

Examination Format

There will be two papers. Questions involving the testing of geographical skills may be set in any section of the papers.

Paper 1 (2 1/3 hours).

It will consist of two parts, I and II, Part I will contain 35 compulsory multiple choice questions, carrying 35 marks. Part II will consist of two sections. A and B. Section A will have two compulsory questions on Mapwork and Photographic interpretation carrying 40 marks. Section B will contain five essay questions on East Africa. Candidates will be required to attempt one question in this section carrying 25 marks. (100 marks)

Paper 2 (2 1/2 hours)

It will consist of two parts, I and II. Part I will contain six questions on Section III of the Syllabus (The Rest of Africa). Candidates will be required to attempt two questions from this part, carrying 50 marks.

PartII will contain nine questions, three on each of the three regions in Section Iv of the Sylabus - North America. The Rhine Lands, and China Regions respectively. Candidates will be required to answer two questions, each question chosen from a different region.

(100 marks)

NOTE:: Candidates should bring mathematical instruments.

Detailed Syllabus:

Section I: *Map-work and Photographic Interpretation:*

Map-reading and interpretation based on a contoured survey-map extract of part of East Africa. (The map supplied will be printed in full colour. It will be fully detailed and will contain a reference or a key.) Interpretation of a photograph from an area in East Africa (The photograph may not be related to the map).

Section II: *East Africa (Kenya, Tanzania, and Uganda)*

Candidates will be expected to have studied East Africa with special reference to recent developments in these countries and to the geographical factors influencing these developments.

The studies should be illustrated and made through field studies of local areas, sample studies, and general studies of other areas in East Africa and of East Africa as a whole. Candidates will be expected to have made at least one field or sample study to exemplify each of the major aspects of development (and each of the major geographical regions) of East Africa.

The study of East Africa should include:

(a) The distribution of population in relation to resources and environment.

(b) The major landforms their modes of formation and the agencies modifying them including main types of rocks; earth movements; folding faulting plateaus, vulcanicity; weathering and the formation of soils; processes and results of erosion and deposition by running water: processes and results of coastal erosion and deposition (including coral): lakes; mountain glaciation.

(c) The elements of weather. The characteristics of climate and vegetation.

(d) Characteristics of agriculural development including small holdings, large-scale and parastatal farming, irrigation, water supply and control, pastoralism, soil erosion, and conservation.

(e) Characteristics of mining and industrial development.

(f) Forest resources.

(g) Fishing.

(h) The development of tourism including conservation of wildlife.

(j) Characteristics of internal and external trade and communications.

Section III: *The Rest of Africa*

Africa and its political units. Its relief and major landforms, the agencies, modifying them and their influence on human activity. Characteristics of and factors affecting climate, vegetation and distribution of population. Candidates will be expected to have studied specific geographical areas that illustrate different types of development.

(a) The change from subsistence to a market economy, e.g. cocoa farming in Ghana; palm oil in Nigeria.

(b) Large-scale agriculture, e.g. drubber in Liberia; sugar in Natal.

(c) Large-scale irrigation, e.g. the Gezira scheme; the Richard Tol scheme on the Senegal River.

(d) Multi-purpose scheme in river development, e.g. Kariba, Volta Aswan.

(e) Pastoralism, e.g. cattle in Northern Nigeria; sheep in South Africa

(f) Use and development of forest resources, e.g. Swaziland; Ivory Coast (Cote d'Ivoire); Algeria.

(g) Mining industry, e.g. Copper Belt of Zambia: petroleum in Algeri:

(h) Other industrial developments, e.g. Lower Egypt; the Accra-Tema Complex.

(i) Urban development, e.g. Cape Town; Ibadan; Addis Ababa.

(j) Transport development, e.g. Communications in Zambia; transport in the Zaire Republic.

(k) Development of trade, e.g. mono-culture in Gambia; marketing problems of cocoa.

NOTE; The examples given in this section are intended solely as a guide to teachers in interpreting the Syllabus and are not meant to be exclusive.

Section IV: *Studies in Development*

Two of the major regions listed below should be studied with reference to:

Agricultural and industrial development. Major features of relief and drainage and their influence on human activity. Characteristics of and factors affecting climate, vegetation and distribution of population.

Within each region cadidates will be expected to make a series of studies in depth based on those listed below. For each of these studies they are expected to have a knowledge of the characteristics of human development and its relationship with physical environment, and an understanding of the factors aiding and the problems facing development.

Candidates should be able to relate regional studies of climate, vegetation and population to world maps showing climate and vegetation regions and population densities.

The regions:

1. *North America*

With particular reference to:

(a) The Cotton Belt: changing agricultural landscape and a growing industrial area.

(b) Southern California: The development of commercial agricultural and associated industries in a semi-arid landcape.

(c) Canadian Prairies: Extensive farming and early stages of industrail development.

(d) Great Lakes and the St. Lawrence Seaway: an industrial region based on mineral and water resources and ease of communications.

(e) New York: a metropolitan study.

(f) Tennessee Valley Authority: multi-purpose river utilisation.

(g) New England: a well-established agricultural and industrial landscape.

(h) British Columbia: an area largely dependent on exploitation of natural resources-forestry, fishing and minerals.

2. *The Rhine Lands*

For the purposes of this syllabus, the Rhine Lands will include: Belgium, Netherlands and Luxemburg (the BENELUX countries); The Ruhr; the Rhine Gorge and Rift Valley and the adjacent highlands; Switzerland.

Special reference should be made to the following:

(a) Switzerland: farming, industry and tourism. A highly developed economy in a land-locked country with limited physical resources.

(b) Ruhr industrial region.

(c) Rift Valley: farming, industrial development

(d) The Rhine Delta region: land reclamation. Dutch dairy farming
(e) The Rhine Valley as an international routeway.
(f) Rotterdam and Europoort as international ports.

3. *China*

(a) Agricultural Communes in the great plains of North China and the Sikiang Valley: social and agricultural organization: relation of crops to environment.
(b) Trade patterns including the use of Hong Kong as a entrepot.
(c) Manchuria: a study of large-scale industry.
(d) Development of scattered small-scale industry.
(e) Characteristics of an urban area: Peking
(f) The Yangtse river: study of a river-basin development.
(g) Yunnan: study of problems of remoteness.

Appendix 7

273 GEOGRAPHY
S I - 4 GEOGRAPHY SYLLABUS

AIMS:

To prepare the pupils for-service- to his country by:

(i) Making-him aware of this immediate environment;

(ii) Helping him to acquire the appropriate attitudes and skills with which to interpret and "develop that environment including" those of recording, analysing, and synthesising the observations that have been made:

(iii) Helping him to acquire "knowledge and understanding of the relevant aspects of the larger environment in which the community-and country exist "by" selecting topics of particular applicability to his environment;

(iv) Helping him to acquire the ability to use geographical knowledge of the larger envirnment in which the community and country exist by selecting topics of particular applicability to his environment;

(v) Helping him to interpret photograph " depicting both physical and human feature, and representing or interpreting geographical statistics;

EXAMINATION FORMAT:

There will be two papers of which must be taken. Candidates should bring mathematical instruments, slides rules, and mathematical tables may be used. Questions involving the testing of geographical skills may be set, any section of the paper.

Paper I	2 1/3 hours) Section A & B		
Part I	35 objectives questions.	45 minutes	35marks
Part 2	two compulsory questions on map work-and photographic interpretation.	1hour 35 minutes	40 marks
	One essay question on East Africa		25 marks
Paper two	(2 1/2 hours) Section C & D		
Part I	two essay questions on the rest of Africa		50 marks
Part 2	two essay questions on Regions of Development		50 marks

DETAILED SYLLABUS:

SECTION A: Map - work and photographic interpretation.

Map - reading and interpretation based on a contoured survery-map extract of part of East Africa. (The map supplied will-be printed in full colour. It will be full detailed and will contain a reference or a key.) Interpretation of a photograph from an area in East Afica. (Both the map-reading and photograph for interpretation will be compulsory. The photograph may not be related to the map).

SECTION B. East Africa (Kenya, Tanzania, and Uganda) Candidates will be expected to have studied East Africa with special reference to recent developments in these countries and to the geographical factors influencing development.

The studies should be illustrated and made through field-studies of local areas, sample studies, and general studies of other areas in East Africa and of East Africa as a whole. Candidates will be expected to have made at least one field or development (and each of the major geographical regions of East Africa.

The study of East Africa should include:

(a) The distribution of population in relation to resources and environment.

(b) The major landforms, their modes of formation on and the agencies modifying them including: main types of rocks; earth movements; foding and faulting pateaus, volcanicity;
weathering and the formation of soils; processes and results of erosion and deposition by running water; processes and result of coastal erosion and deposition (Including coral), lakes; mountains glaciation.

(c) The elements of weather. the characteristics of climate and vegetation.

(d) Characteristics of agricultural development including small holding large scale and parastatal farming, irrigation, water supply and control, pastoralism, soil erosion and conservation.

(e) Characteristics of mining and industrial development.

(f) Forest resources.

(g) Fishing

(h) The development of towns and ports.

(i) The development of tourism including conservation of wildlife.\

(j) Characteristics of internal and external trade and communications.

SECTION C: The Rest of Africa.

Africa and its political units. It's relief and major landforms, the-agencies modifying them and their influences on human activity. Charateristics of and factors affecting climate, vegetation/ of population. / and distribution

Candidates will be expected to have studied specific geographical areas that illustrate different types of development.

(a) The changes from subsistance to a market economy, e.g. cocoa farming in Ghana; pal oil in Nigeria.
(b) Large - scale agriculture, e.g. rubber in Liberia, sugar in Natal.
(c) Large - scale irrigation, e.g. Gezira scheme; Richard Toll scheme on the Senegal River.
(d) Multi-purpose scheme in river development, e.g. Kariba, Volta, Aswan.
(e) Pastoralism, e.g cattle in Northern Nigera; sheep in South Africa.
(f) Use and development of forest resources, e.g. Swazilan, Ivory-coast, Algeria.
(g) Mining industry, e.g copper belt of Zambia; Petroleum in Algeria.
(h) Other industrial development e.g lower Egypt; Accra-Tema complex,
(i) Urban development e.g. Cape town; Ibadan, Addis Ababa.
(j) Transport development,e.ge.communications for Zambia; transport in the Zaire Republic.
(k) Development of trade, e.g mono-culture in Gambia; maketing problems of cocoa.

Note: The examples given in this section are intended solely as a guide to teachers in interpreting the syllabus and are not meant to be exclusive.

SECTION D: Studies of Development.

Two of the major regions listed below should be studied with reference to agricultural and industrial development. Major features of relief and drainage and their influence on human activity.

Characteristic of and factors affecting climate, vegetation and distribution of population.

Within each region cadidates will be expected to make a series of studies in depth based on those listing below. For each of these studies they are expected to have a knowledge of the charateristics of human development and its relationship with physical environment, and an understanding of the factors aiding and the problem facing development.

Candidates should be able to relate regional studies of climate vegetation and regions and population densities.

The Regions:

1. North America.

With particular reference to:
(a) The cotton Belt: changing agricultural landscape and a growing industrial area.

(b) Southern California: The development of commercial agricultural and associated industries in a semi-arid landscape.

(c) Canadian Prairies: Extensive farming and early stages of industrial.

(d) Lakes and the St. Lawrence seaway: An industrial region based on mineral and water resources and ease of communications.

(e) New York: A metropolitan study.

(f) Tennesse valley authority: Multi-purpose river utilization

(g) New England: A well-established agriculture land and industrial landscape.

(h) British Columbia: an area largely dependent on exploitation of natural resources-forestry, fishing, and minerals

2. The Rhine Lands:

For the purpose of the syllabus, the Rhine lands will include:

The BENELUX countries; The Ruhr; the Rhine Gorge and Rift Valley and the adjacent higlands; Switzerland.

Special reference should be made to the following:

(a) Swizerland: farming, industry and tourism. A highly developed economy in a land-locked country with limited physical resources.

(b) Ruhr Industrial region.

(c) Rift Valley: Farming and industrial development.

(d) The Rhine Delta region: land reclamation. Duch dairy farming.

(e) The Rhine valley as an international routeway.

(f) Rotterdam and Europort as internation ports.

3. China:

With particular reference to:

(a) Agricultural communes in the great plains of North-China and Sikiang valley. Social and agricultural organization: relation of crops to environment.

(b) Trade patterns including the use of Hong Kong as a entrepot.

(c) Manchuria: study of large4- scale industry.,

(d) Development of scattered small-scale industry.

(e) Characteristics of an urban area: Peking.

(f) The Yangtse river: study of a river-basin development.

(g) Yunnan: study of problems of remoteness

Appendix 8

INSTITUTE OF TEACHER EDUCATION KYAMBOGO
DIPLOMA IN EDUCATION (SECONDARY)
NATIONAL TEACHERS' COLLEGES
PART I EXAMINATIONS 1993/94

PAPER I: METHODS
GEOGRAPHY

DATE: WEDNESDAY 1/6/94 TIME

INSTRUCTIONS: Answer THREE Questions in all. Questions 1 and 2 in section A are compulsory. Only ONE other question should be answered from section B.

1. MAPWORK

STUDY THE 1:50,000 East Africa Map extract of NAMALU (UGANDA) Sheet 45/1 Edition 5-D.O.S. 19972, series and answer the following questions: -

(a) (i) Give the six-figure grid reference of Morwangatwinyi Trigonometrical Station.

(ii) What feature is found at Grid reference 767946?

(b) State
(i) The general direction of the dry weather road from the culvert (796950).

(c) (i) Measure and state in Kilometers the distance along the Parish Boundary from grid reference 670009 to 811074.

(ii) Calculate the area covered by the PLAIN - UPE GAME RESERVE to the nearest km2.

(d) Draw a sketch map of the area shown on the map and on it
(i) show and name the
- main relief regions
- drainage features

(ii) Describe the relationship between relief and drainage.

(e) Using evidence from the map extract, outline the major economic

2. PHOTOGRAPHIC INTERPRETATION

Study the photograph provided (source: kenya Map and Phot studies by Roger Belshaw, Page4) and answer the following questions.

(a) (i) Identify and describe how the economic activity taking place in the photograph is carried out

(ii) Draw a simple sketch of the area shown on the photograph and on in mark and show the main
- physical features
- man-made features

(b) With reference to Uganda and the photograph, describe the problems associated with the economic activity shown.

(c) Supposing you were to teach the topic "Fishing in East Africa" to an S.4. class, using this photograph as a major teaching aid, prepare lesson notes explaining how you would adequately cover the topic.

SECTION B: ANSWER ON QUESTION ONLY

3. (a) Explain the importance of Fiels Work in the teaching of Geography at the Secondary school level.

(b) (i) You are required to teach an S.1 class about the Geography of the area around the school using the Field Work method. Write down a lesson note that you would use to teach the class.

(ii) Identify the shortcomings of the method used.

4. (a) Differentiate beween aims and objectiveson Geography education.

(b) With reference to the "0" level 273 Geography Syllabus provided, explain how the content selected fulfils its aims and objectives.

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INSTITUTE OF TEACHER EDUCATION KYAMBOGO
DIPLOMA IN EDUCATION (SECONDARY)
NATIONAL TEACHERS' COLLEGES
PART I EXAMINATIONS 1993/94

PAPER II

GEOGRAPHY (THEORY)

DATE: TIME: 3 HOURS

INSTRUCTIONS

1. There are TWO SECTIONS, A AND B.
2. Candidates to attempt THREE Questions in all.
3. Two Questions should be from Section A and one question from Section B.

SECTION A: EAST AFRICA

1. (a) Examine the factors that influence climate in East Africa.
(b) With reference to an S.2 class, explain how you would introduce the idea of a weather station and its purpose.

2. (a) Outline the factors that have led to the establishment of irrigation projects in East Africa.
(b) With reference to any one irrigation scheme, explain the benefits and problems of irrigation farming in East Africa.

3. "The areas mostly affected by soil erosion are the highlands of East Africa.
Adopted from Lands and Peoples of East Afica - By Hickman and Dickins, Old Edition Page 25.
(a) With reference to the above quotatio, examine the causes of soil erosion in East Africa.
(b) Outline the measures taken to conserve soils in this area.

SECTION B: NORTH AMERICA

4. The table below shows the urban population percentage by region in USA in 1910, 1950 and 1980. Study it and then answer the questions that follow.

REGION	1910	1950	1980
New England	73.4	74.8	75.1
Mid-Atlantic	70.2	75.6	80.6
West-North Central	52.7	66.3	73.1
S. Atlantic	23.1	41.6	67.1
E.N. Central	33.1	49.1	63.9
E.S. Central	18.6	35.5	55.6
W.S. Central	22.2	53.1	73.4
Mountain	35.8	49.1	76.4
Pacific	56.8	63.6	86.6

Source: J.H. Paterson, Seventh Ed. North America. Page 65.

(a) Basing yourself on the figures in the table, examine the causes of rapid urbanization in the U.S.

(b) With reference to any one of the regions given in the table, analyze the effects of rapid urbanization.

Explain how these problems have been overcome.

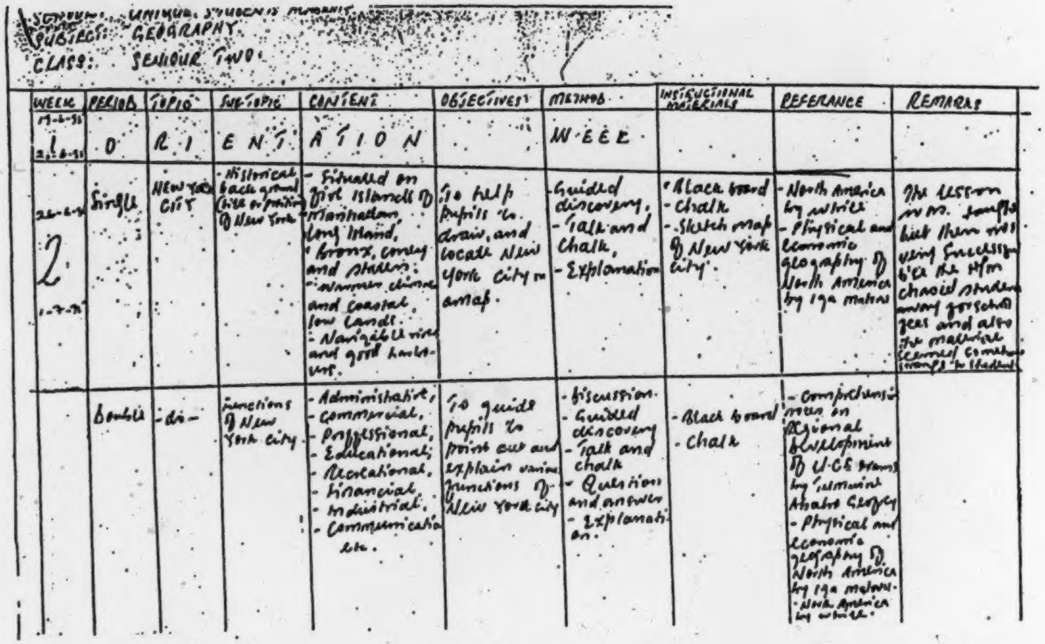
5. (a) (i) Draw a sketch map of the Southern U.S. showing the Old and the New Cotton Belt.
(ii) Examine the factors which led to the establishment of both the Old and the New Cotton Belt.
(b) Outline (i) The benefit
(ii) Problems of the Cotton Belt.

Appendix 9

GEOGRAPHY SCHEME OF WORK. SCHOOL PRACTICE 1989

Name of Student Teacher : ____________________
College : NATIONAL TEACHERS' COLLEGE, X.
School : REPUBLIC SECONDARY SCHOOL.
Duration Covered : SIX WEEKS (6.3. 1989 - 13.4 1989)
Allocation : THREE (3 PERIODS PER WEEK EACH 40 MINUTES.

WEEK	THEME	TOPIC/CONTENT	NO. OF PERS.	OBJECTIVES	CON -CEPTS	SKILLS	TEACHING METHOD	APPARATUS	REFERENCE
I START 6. 3. 89	SOUTH AMERICA	i) THE PHYSICAL ENVIRONMENT OF THE AMAZON BASIN - location - climate - relief - soils - vegetation	1(40 min)	By lesson end pupils should be able to describe the major physical characteristics of the Basin.	- equatorial climate - rain-forest - Basin	-locating - interpretation of Climographs - Description of photograph.	Socratic (mainly)	-Sketch map of S. America showing the Basin. Climograph (manaos) Photograph of a river-side dwelling.	Honeybone R.C. Roberson B.A. Bk 2 The Southern Continents H.E.B. London 1971 pp 201-210
		ii) ECONOMIC DEVELOPMENT IN THE AMAZON BASIN - resource base - population - major projects - comparison with developed states.	2 (80 min)	By lesson and pupils should name at least three factors hindering economic development in the Basin.	-development - resource - capital - input	- Filling in base map. - drawing statistical diagrams from raw data.	-socratic discussion	- Sketch map showing mineral deposits -Raw data on population and Industrial development.	-do-
e	-do-								



SCHOOL: UNIQUE STUDENTS ACADEMY
SUBJECT: GEOGRAPHY
CLASS: SENIOUR TWO

WEEK	PERIOD	TOPIC	SUB-TOPIC	CONTENT	OBJECTIVES	METHOD	INSTRUCTIONAL MATERIALS	REFERANCE	REMARKS
19-6-91 1 21-6-91	O	R I	E N T	A T I O N		W E E K			
26-6-91 2 1-7-91	Single	NEW YORK CITY	- Historical background (site or position) of New York	- Situated on five islands of Manhattan, Long Island, Bronx, Coney and Staten. - Warmer climate and coastal low lands. - Navigable rivers and good harbours.	To help pupils to draw, and locate New York City on a map.	- Guided discovery. - Talk and chalk. - Explanation	- Black board - Chalk - Sketch map of New York City.	- North America by White - Physical and economic geography of North America by Iga Matovu	The lesson was [illegible] hit them well using [illegible] the [illegible] chosen students among [illegible] and also the material learned [illegible] to students
	Double	- do -	Functions of New York City	- Administrative, - Commercial, - Professional, - Educational, - Recreational, - Financial, - Industrial, - Communication etc.	To guide pupils to point out and explain various functions of New York City	- Discussion. - Guided discovery - Talk and chalk - Question and answer - Explanation.	- Black board - Chalk	- Comprehensive notes on Regional development of U.C.E. exams by [illegible] Abaho Geofrey - Physical and economic geography of North America by Iga Matovu. - North America by White.	

Appendix 10: Sample Geography Subject Time Table for Student Teachers

3 3-7-95	Single	-do-	Comparision of New York City and Kampala City.	- Location. - Climate. - Functions. - Technological advancement. - Population figures, their functions and standard of living (S.O.L) etc.	To guide pupils to draw similarities and differencies between the two cities	- Guided discovery - Explanation. - Talk and chalk - Discussion. - Question and Answer	- Black board - Chalk	- Comprehensive notes on world problems and development (Geography for A: Level 2nd/2) by Mrs Bainsbangit	
9-7-95	Double	-do-	Problems facing New York City and some of the solution put in place to rectify the problems mentioned.	- Traffic congestion. - Shortage of Land. - Pollution. - Slum development - Over population - Lack of proper employment etc.	To enable pupils to point out and discuss problems and solutions of rapid urban development.	- Discussion. - Question and Answer - Talk and chalk - Explanation - Guided discovery.	- Black board - Chalk	- do -	
4 10-7-95 12-7-95	Single	-do-	Changing Geography of New York	- Technological developments in Maritime shipping. - Traffic modernisation - Urban development etc.	To help pupils to know various aspects that have changed in the geography (urban) of New York City	Talk and chalk - Explanation.	- Blackboard - Chalk.	-do-	

NAME OF STUDENT : KIRABO SAMUEL
COLLEGE : NTC KALIRO
SCHOOL : JINJA SENIOR SECONDARY SCHOOL
DURATION : 5 WEEKS FROM 19th JUNE 1995 to 24th JULY 1995.
ALLOCATION : 3 PERIODS PER WEEK
SUBJECT : GEOGRAPHY
CLASS : SENIOR TWO

WEEK	PERIOD	TOPIC	SUB-TOPIC	CONTENT	OBJECTIVES	SKILLS	METHODS	T/L AID	REFERENCE	REMARKS
1	1	COCOA GROWING IN WEST AFRICA	Climate and Vegetational regions of West Africa	- Definition of climate. - [illegible] of climatic factors. - [illegible] climatic conditions [illegible] vegetational regions. - Relationship between natural vegetation and main food crops. - Relationship between climate, soils and type of crop to be grown. - Change from subsistence to market economy.	By the end of the lesson pupils should be able to: define climate - Enumerate the climatic factors - Mention the relationship between climate and vegetation - Tell how climate affects the type of soils.	definition of climate. Mentioning climatic factors. Relationship between climate and vegetation Relating climate to soils.	discussion [illegible]	Chalk board -DO-	A geography of Africa by W.I. Minns New Ed. Ch. 4 Africa by R.G. WHITE PHILIPS Modern school Atlas Pg. 69.	
2	-DO-		Ghana as the main country of cocoa growing in West Africa	- Location of Ghana on the Africa wallmap - Extent of production. - Leading producers of cocoa in West Africa. - Other contributors to the leading producers. - Percentage of the world output - [illegible]	By the end of the lesson pupils should be able to: Locate Ghana. - Name Ghana and Ivory Coast as the leading producers in West Africa.	Location of Ghana Ghana and Ivory Coast as the leading producers in cocoa.	[illegible] and discussion	Wall map Manilla chart showing areas of cocoa growing in Ghana Cocoa [illegible] in the [illegible]	-DO-	

WEEK	PERIOD	TOPIC	SUB-TOPIC	CONTENTS	OBJECTIVES	SKILLS	METHOD	TL. AID	REFERENCE	REMARKS
2	1	COCOA GROWING IN WEST AFRICA	The Cocoa farms in Ghana	- Size of farms of Cocoa in Ghana - Conditions and processes of growing Cocoa in Ghana	By the end of the lesson students should be able to:- Mention the size of farms of cocoa in Ghana in hectares. - Enumerate the conditions and processes of growth of Cocoa in Ghana.	Size of Cocoa farms in Ghana. Conditions necessary for Cocoa growth. Stages of Cocoa growth.	Discussion and Socratic	Chalk board	Geography of Africa by U.J. Minns Ch. 4	
-DO-	2	-DO-	Processing of Cocoa.	- Process of harvesting - Treatment after harvesting - Time of harvesting.	By the end of the lesson pupils should be able to:- Mention how Cocoa is harvested, treated and when it is marketed	Harvesting of Cocoa Processing of Cocoa. Marketing of Cocoa.	-DO-	-DO-	-DO-	
3	1	-DO-	Problems of Cocoa production in Ghana	- Physical problems by nature. - Human problems	By the end of the lesson pupils should be able to:- Enumerate the different physical and human problems of Cocoa production	Problems of Cocoa production	Discussion	Chalk board.	-DO-	

Appendix 11

List of Geography Textbooks Commonly Available in Ugandan Secondary Schools and N.T.C.s

Bunnet, R. B. (1968). *Foundations of Modern Geography. Physical Geography in Diagrams* . New York: Praeger.

Cox, P.R. (1979). *Demography: Student's Edition*. Cambridge: Cambridge University.

Dawson, P. and Thomas, D. (1980). *Man And His World: An Introduction To Human Geography*. London: Nelson and Sons Ltd.

Gibbs. (1987). *The Rhine Lands.*

Grove A. T. (1989). *The Changing Geography of Africa*. Oxford: Oxford University.

Hickman, M. & Dickins, W. G. (1986). *Lands And Peoples Of East Africa.* London: Longman.

Knapp et al (1989). *The Challenge Of The Environment.*

Kpedekpo, G.M.K. (1982). *Essentials Of Demographic Analysis for Africa.* London: Heinemann.

Minns, W. J. (1981). Africa: A *Basic Geography*. London Evan Bratters.

Mc Master. (1978). *Map Reading For East Africa..*

N.C.D.C. (1995). *Uganda Secondary School Atlas*. Nairobi: Macmillan.

N.C.D.C. (1992). *Integrated Geography Student Book I*. Kampala: Ministry of Education and Sports.

Pritchard, J.M. (1979). *Africa: A study Geography for Advanced Students*. London: Longman.

Senior, M. (1979). *Tropical Lands: Human Geography.*_ Hong Kong: Longman.

Senior, M.& Olafunde, O. (1990). *A Regional Geography Of Africa*. Singapore: Longman.

Tauser, C.H. *An Introduction To Map Reading In East Africa.*

White, R. (1978). Africa: *Geographical Studies*. London: Heinemann Educational.

Whynne-Hammond. (1985).*Elements Of Human Geography.* London: Allen Unwin.

Young and Lowry. (1969). *A Course In World Geography, Book 7,North America.* New York: Edward Arnold Press.

Young and Lowry. (1969). *A Course In World Geography, Book 5,* New York: Edward Arnold.

Young and Lowry.(1968). *A Course In World Geography , East Africa. Book 7.* New York: Edward Arnold Press.